Urban Design and Georgia's Medium-Sized Towns:
Issues and Prospects

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Abstract

There are sixteen medium-sized rural towns in Georgia that are located outside a census-designated metropolitan area. The populations of these towns vary between 10,000 and 50,000 people with the majority located in the southern regions of the state. These towns have historically been considered the sub-regional nexuses for agriculture, transportation, and commerce that connect directly to the Georgia's larger cities and regions.

However, in recent decades along with other smaller-sized towns, some areas are experiencing job losses, outward migrations of younger people to larger cities, a lack of funding resources for new projects, and poverty rates which are often considerably higher than more urban/suburban areas. At the same time, these areas have also grown in sprawled patterns similar to larger metropolitan suburbs. This paper investigates this sprawled growth and focuses on whether any urban design methods or regulations have influenced the current development of these towns.

This research is guided by three establishing questions. The first being, what constitutes the current urban morphology of these towns? Secondly, what are the aspirations and visions set forth by each of these towns? Thirdly, how has each town's urban form been shaped over time through their primary regulatory documents to reflect or not reflect their aspirations and visions?

The first question will be answered by employing a method of analysis similar to the urban morphology framework set out in Brenda Case Scheer's essay "Anatomy

of Sprawl." This includes the mapping of static, elastic and campus tissues as well as resilient tissues with Google Earth and ESRI ArcGIS being the primary resources. The second question will be answered by a summary analysis and comparison of each town's comprehensive planning documents available from the Georgia Department of Community Affairs and other agencies. The third question will be answered by examining the primary regulatory documents of these towns (e.g. zoning ordinances, subdivision regulations, etc.) to determine how the urban form has been shaped over time legally. This will involve examining the codes of ordinances via Municode (http://www.municode.com) or from an additional government resource and comparing the analysis.

By comparing and contrasting each town's existing urban form conditions, their comprehensive plans, and their regulatory frameworks, planners and urban designers can gain a better understanding as to what a medium-sized town's strengths and weaknesses are from an urban design and planning standpoint. This can then suggest what the next steps are in reforming regulations and methods that will in turn influence development patterns for future growth and cultural vitality.

Background

This research paper focuses on all of Georgia's medium-sized towns that are located outside of major metropolitan regions. There are currently fourteen metropolitan statistical areas (MSA's) in the state of Georgia, as defined by the U.S. Office of Management and Budget and the U.S. Census. The majority of their territories are located in the middle and northern regions of the state. South of the fall line second tier cities of Augusta, Macon, and Columbus, there are three designated MSA's (Albany, Brunswick and Savannah). There are some medium-sized towns and cities between 10,000 and 50,000 people in Georgia that are located within major metropolitan regions however these tend to serve more as satellite towns or sprawling bedroom communities that operate and develop differently because of their close proximity to major urban centers and are therefore more co-dependent on the urban center's regional growth as a whole.

Since these sixteen towns are not located within major metropolitan areas, they typically stand on their own as independent sub-regional hubs that interconnect to other large regions while concurrently supporting their own local economy and developmental growth. The following tables and figures summarize the basic population, housing, and economic demographics of all sixteen medium-sized towns of focus.

Table 1.1 – Population Figures of Medium-sized Towns in Georgia between 10,000 & 50,000 people (Located outside of Census-designated Metropolitan Areas, 1950-2010)[1]

CITY-County	POPULATION (Persons)							Percent Change (1950-2010)
	1950	1960	1970	1980	1990	2000	2010	
AMERICUS-Sumter	11,389	13,472	16,091	16,120	16,512	17,013	17,041	49.6%
BAINBRIDGE-Decatur	7,562	12,714	10,887	10,553	10,712	11,722	12,697	67.9%
CALHOUN-Gordon	3,231	3,587	4,748	5,563	7,135	10,667	15,650	384.4%
CORDELE-Crisp	9,402	10,609	10,733	11,184	10,321	11,608	11,147	18.6%
DOUGLAS-Coffee	7,488	8,736	10,195	10,980	10,464	10,639	11,589	54.8%
DUBLIN-Laurens	10,232	13,814	15,143	16,083	16,312	15,857	16,201	58.3%
JESUP-Wayne	4,605	7,304	9,091	9,418	8,958	9,279	10,214	121.8%
KINGSLAND-Camden	1,169	1,536	1,831	2,008	4,699	10,506	15,946	1264.1%
MILLEDGEVILLE-Baldwin	8,835	11,117	11,601	12,176	17,727	18,757	17,715	100.5%
MOULRIE-Colquitt	11,639	15,764	14,302	15,105	14,865	14,387	14,268	22.6%
ST. MARYS-Camden	1,348	3,272	3,408	3,596	8,187	13,761	17,121	1170.1%
STATESBORO-Bulloch	6,097	8,356	14,616	14,866	15,854	22,698	28,422	366.2%
THOMASVILLE-Thomas	14,424	18,246	18,155	18,463	17,457	18,162	18,413	27.7%
TIFTON-Tift	6,831	9,903	12,179	13,749	14,215	15,060	16,350	139.4%
VIDALIA-Toombs	5,819	7,569	9,507	10,393	11,078	10,491	10,473	80.0%
WAYCROSS-Ware	18,899	20,944	18,996	19,371	16,410	15,333	14,649	-22.5%

[1] U.S. Census Bureau, 2012

Table 1.2 – Housing Unit Figures of Medium-sized Towns in Georgia between 10,000 & 50,000 people (Located outside of Census-designated Metropolitan Areas, 1950-2010)[2]

CITY-County	HOUSING UNITS (Residential Structures)							Percent Change (1950-2010)
	1950	1960	1970	1980	1990	2000	2010	
AMERICUS-Sumter	3,547	4,249	4,965	5,574	6,318	7,053	7,135	101.2%
BAINBRIDGE-Decatur	2,307	3,916	3,679	3,991	4,494	5,051	5,495	138.2%
CALHOUN-Gordon	1,003	1,138	1,648	2,197	3,109	4,298	6,609	558.9%
CORDELE-Crisp	2,885	3,423	3,510	3,892	4,350	4,782	4,898	69.8%
DOUGLAS-Coffee	2,019	2,536	3,153	3,959	4,232	4,692	4,868	141.1%
DUBLIN-Laurens	3,193	4,262	4,881	5,861	6,495	6,977	7,174	124.7%
JESUP-Wayne	1,286	2,204	2,983	3,469	3,607	3,469	3,663	184.8%
KINGSLAND-Camden	347	440	564	793	2,265	4,203	6,506	1774.9%
MILLEDGEVILLE-Baldwin	2,451	3,133	3,510	4,416	4,873	5,356	6,856	179.7%
MOULRIE-Colquitt	3,458	5,069	4,803	5,687	6,030	6,525	6,178	78.7%
ST. MARYS-Camden	396	898	1,038	1,330	3,178	5,351	7,443	1779.5%
STATESBORO-Bulloch	1,871	2,685	4,989	5,090	5,758	9,235	11,602	520.1%
THOMASVILLE-Thomas	4,344	5,742	5,952	6,899	7,446	7,788	8,534	96.5%
TIFTON-Tift	2,120	3,150	3,840	4,683	5,677	6,102	6,752	218.5%
VIDALIA-Toombs	1,698	2,202	3,117	3,854	4,557	4,676	4,691	176.3%
WAYCROSS-Ware	5,528	6,883	6,665	7,649	7,519	7,534	7,519	36.0%

[2] U.S. Census Bureau, 2012

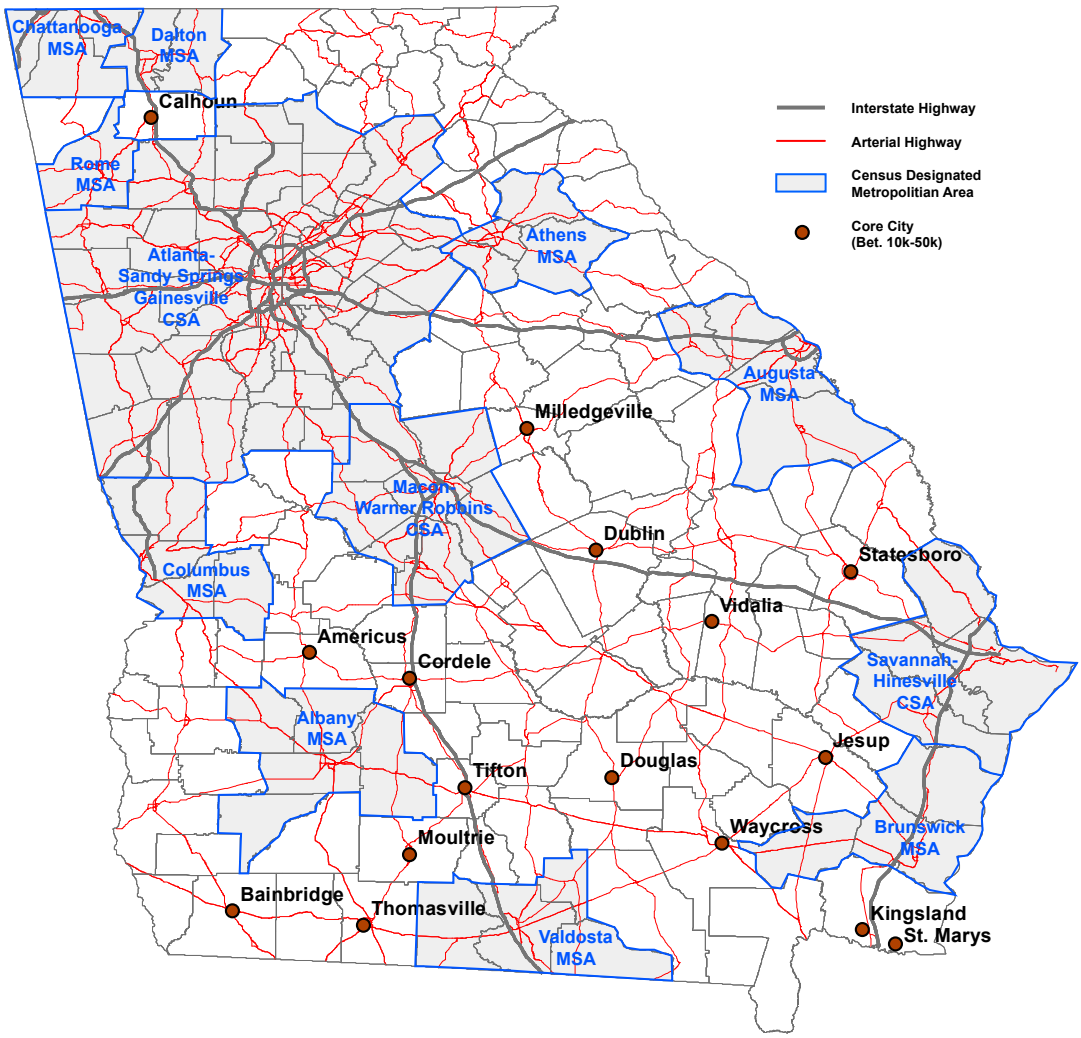
Table 1.3 – Economic Job Growth Figures for Medium-sized Towns in Georgia between 10,000 & 50,000 people (Located outside of Census-designated Metropolitan Areas)[3]

CITY	COUNTY	Industry Jobs Total (2000)	Industry Jobs Total (2010)	% Change Industry	Dominant Industry Type	Dominant Industry jobs Amt
Americus	**Sumter**	12579	8406	-33.17%	Health care and social assistance	1475
Bainbridge	**Decatur**	8807	6784	-22.97%	Retail Trade	1910
Calhoun	**Gordon**	19500	16334	-16.24%	Manufacturing	5540
Cordele	**Crisp**	7774	6455	-16.97%	Retail Trade	1420
Douglas	**Coffee**	16870	12128	-28.11%	Manufacturing	2820
Dublin	**Laurens**	16795	15514	-7.63%	Health care and social assistance	2949
Jesup	**Wayne**	7796	5684	-27.09%	Retail Trade	1319
Kingsland	**Camden**	8072	8572	6.19%	Retail Trade	2378
Milledgeville	**Baldwin**	15271	12788	-16.26%	Health care and social assistance	4209
Moultrie	**Colquitt**	11252	11493	2.14%	Manufacturing	3148
St. Marys	**Camden**	8072	8572	6.19%	Retail Trade	2378
Statesboro	**Bulloch**	16481	16511	0.18%	Retail Trade	3422
Thomasville	**Thomas**	18099	15583	-13.90%	Health care and social assistance	2500*
Tifton	**Tift**	17996	15502	-13.86%	Health care and social assistance	3238
Vidalia	**Toombs**	10300	9324	-9.48%	Health care and social assistance	2038
Waycross	**Ware**	13125	11352	-13.51%	Retail Trade	2848

* Figure estimated from suppressed Economic Census Data, (between 2500-4999) (US Census, 2012)

[3] U.S. Census Bureau, 2012

Figure 1 – Map of Medium-sized Towns in Georgia between 10,000 & 50,000 people (Located outside of Census-designated Metropolitan Areas) [4]



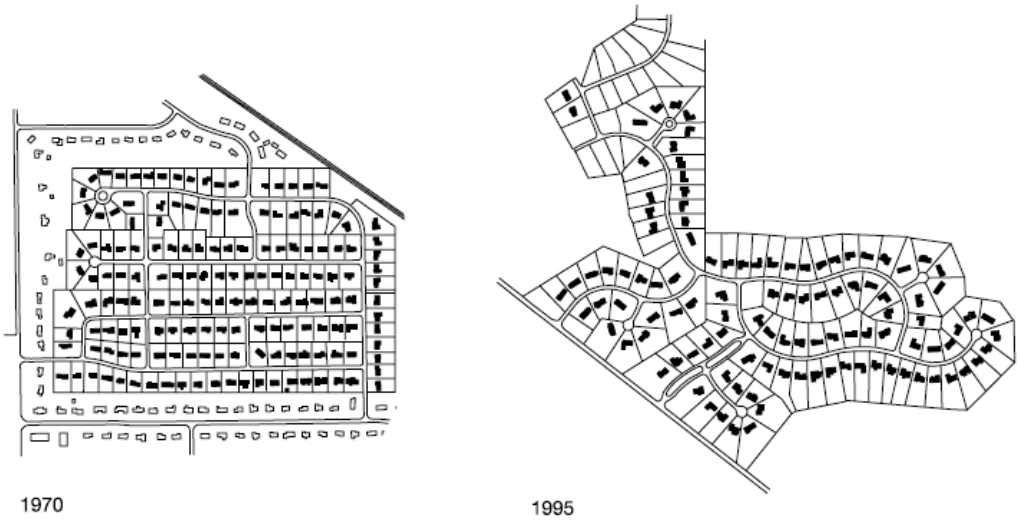
[4] ESRI ArcGIS 10 software - U.S. Census Bureau, 2012

Town Urban Tissues

- **Background on Suburban and Urban Tissues**

To answer the first question of "what constitutes the current urban morphology of these towns," suburban tissue analysis methods can be applied, as mentioned in Brenda Case Scheer's essay "Anatomy of Sprawl." In this essay, Scheer defines three types of suburban tissues that explain the various types of suburban patterns formed from development aggregations of streets, lots, building types, and blocks over time. Each tissue pattern of typical suburban sprawl is described as being static, campus, or elastic.

Figure 2 – Diagram Examples of Static Tissue[5]

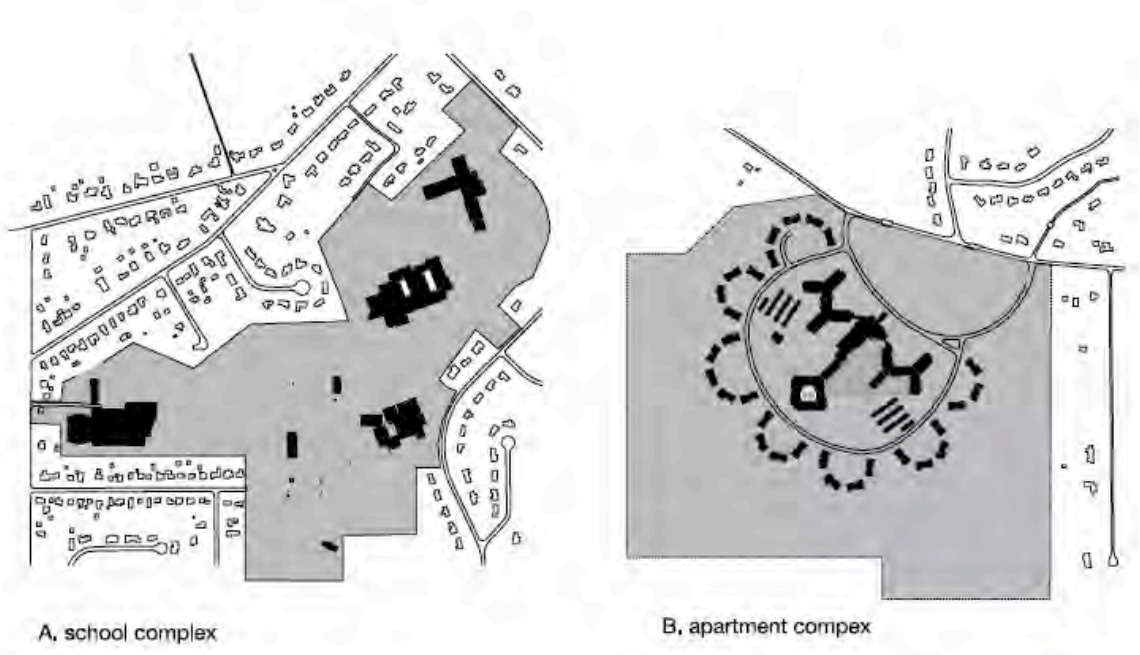


Static tissues according to Scheer are the development patterns that consist primarily, but not necessarily exclusively, of single-family detached homes in master-planned communities. (Word, 2012) The tissue patterns are fairly consistent in nature and commonly consist of small lot sizes, similar building structures, and are

[5] Referenced from Scheer, Brenda Case (2001), p. 33

usually developed in a relatively short period of time (between 10 and 20 years). She describes this as being one of the most stable tissues because of how they are pre-determined to fit a certain aggregation of building type, lot, and street frontage that will rarely ever change over time. (Scheer, 2001)

Figure 3 – Diagram Examples of Campus Tissue[6]



Campus tissues are development patterns on large-tracts of land that unlike static tissues are not subdivided into smaller lots. There are commonly multiple building structures on a single large lot and are linked together primarily by private access roads or sidewalks that do not serve as subdividing boundaries. Most examples of these include: universities, apartment complexes, airports, medical centers, corporate campuses, industrial complexes, civic centers, recreation areas, and government centers. (Scheer, 2001)

[6] **Referenced from Scheer, Brenda Case (2001), p. 35**

Elastic tissues are the development patterns formed mainly along pre-urban paths or on major arterial roads. It's the least stable of all the suburban tissues and are typically: not pre-planned, evolves at a rapid pace over time, varies in lot size, and usually contain a single major building structure with private access roads similar to campus tissues. Examples of these include strip retail shopping centers, fast food restaurants, gas stations, and some industrial uses. In some instances at the urban fringe, single-family houses on large lots are also included. (Scheer, 2001)

Figure 4 – Diagrams of Elastic Tissue[7]

A. roadside strip

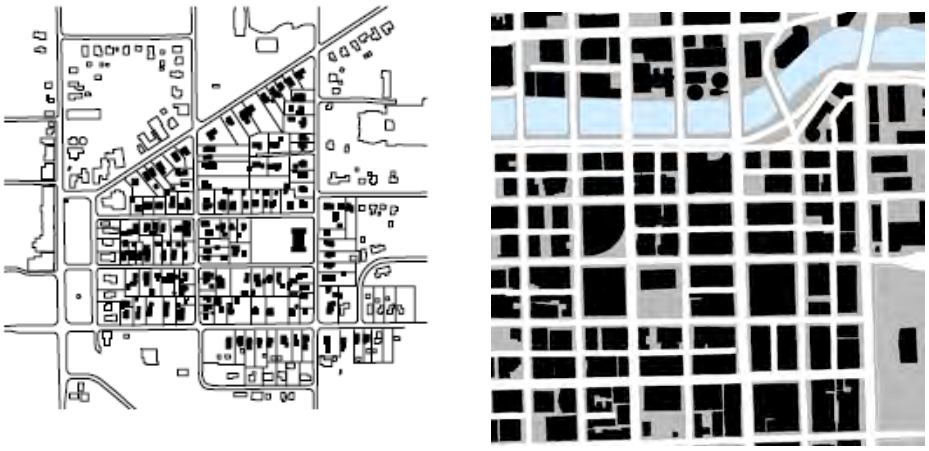
B. village center

In addition to these suburban tissues, there is also a type of urban tissue that is referred to as "resilient tissue." Similar to static tissue, the resilient tissue is highly organized and is relatively stable in form. However unlike static, they are not linked to

[7] **Referenced from Scheer, Brenda Case (2001), p. 35**

a single particular building type. Also unlike the other suburban tissues, the resilient tissue is fundamentally formed by the aggregation of subdivided lots, blocks, and streets that are typically small-scale, gridded in a collinear fashion, and have high levels of interconnectivity. (Word, 2012) They are essentially located in a city's historic urban core where this pattern of development was predominant to the automobile and even the industrial eras. This type of tissue has proven over time to be the most flexible type of development structure and inheritably supports transformations of building types and lots over time without drastically altering the existing grid structure. Resilient tissue also provides a compact and efficient structure that can support human-scale walkability and active lifestyles. (Tolentino, 2011)

Figure 5 – Diagram of Resilient Tissue[8,9]



[8] Left image referenced from Scheer, Brenda Case (2001), p. 33

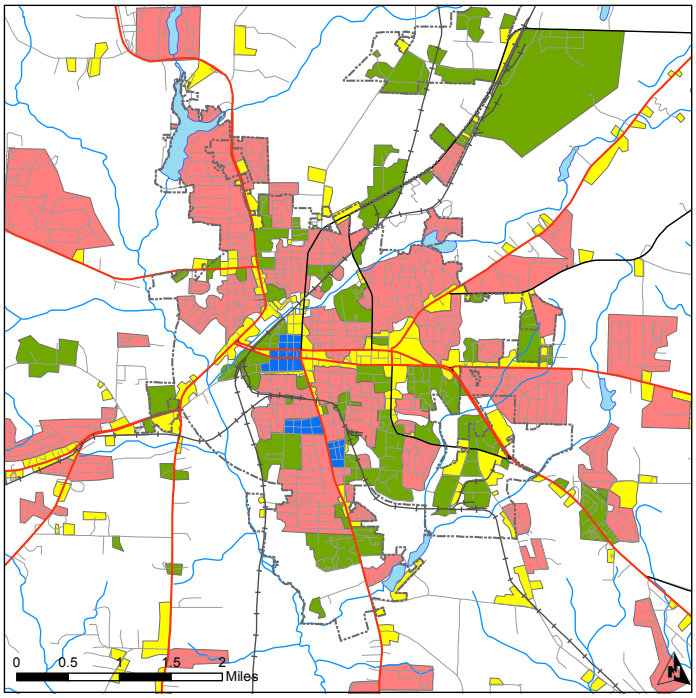
[9] Right image referenced from a previous Georgia Tech urban study research project by authors: Travis Hampton, Laura Richter, & Huafei Xing, Fall 2012

- **Applied Urban Tissue Analysis**

The following diagrams show suburban and urban tissue analysis applied to all sixteen medium-sized, standalone towns in Georgia. The resilient tissues are shown in blue, campus tissues in green, static tissues in red, and elastic tissues in yellow. Each diagram scale is consistent at approximately 40 square miles, which allows for each town to adequately show most of its core-urbanized area along with some of their exurban surroundings.

Percentages of tissue content will be calculated as a ratio percentage to the overall 40 square-mile study area and not the municipal boundaries. All diagrams are generated from ArcGIS 10 and use the most current statewide shape file data to date from ESRI and the US census. This analysis will show just how much significant urban sprawl, commonly known to occur in larger urban metros, happens in a similar pattern at a medium-sized town scale.

Figure 6.1 – Americus Tissue Analysis



County: Sumter

Founded: 1832

Population Change (1950-2010): 49.6%

Population Density (2010): 1516.1 people/square mile

Housing Unit Change (1950-2010): 101.2%

Housing Unit Density (2010): 634.8 units/square mile

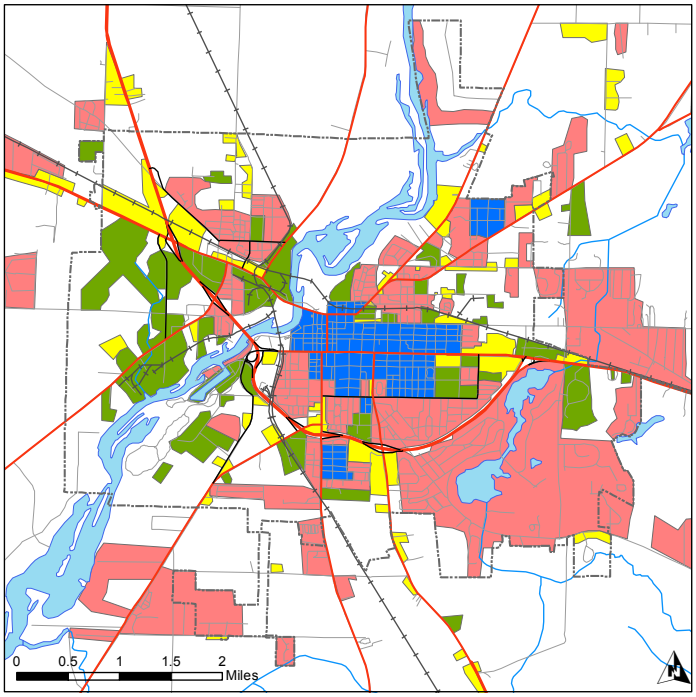
Employment Change (2000-2010): –33.17%

Largest Employment Sector (2010): Health Care & Social Assistance, 1,475

Tissue Content:

% Resilient: 0.48%
% Static: 18.29%
% Elastic: 5.51%
% Campus: 9.79%

Figure 6.2 – Bainbridge Tissue Analysis



County: Decatur

Founded: 1829

Population Change (1950-2010): 67.9%

Population Density (2010): 675.4 people/square mile

Housing Unit Change (1950-2010): 138.2%

Housing Unit Density (2010): 292.3 units/square mile

Employment Change (2000-2010): –22.97%

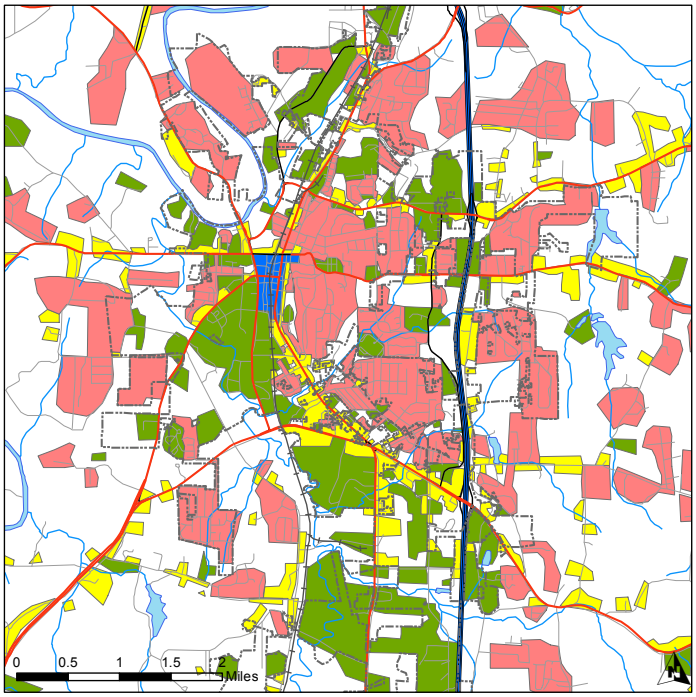
Largest Employment Sector (2010): Retail Trade, 1,910

Tissue Content:

% Resilient: 2.94%
% Static: 20.35%
% Elastic: 4.14%
% Campus: 6.57%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.3 – Calhoun Tissue Analysis



County: Gordon

Founded: 1852

Population Change (1950-2010): 384.4%

Population Density (2010): 1048.2 people/square mile

Housing Unit Change (1950-2010): 558.9%

Housing Unit Density (2010): 442.7 units/square mile

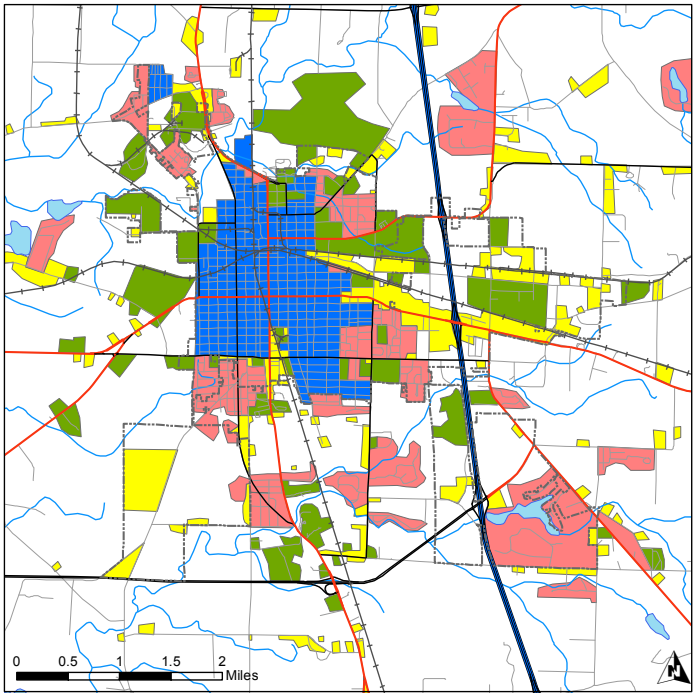
Employment Change (2000-2010): --16.24%

Largest Employment Sector (2010): Manufacturing, 2,820

Tissue Content:

% Resilient: 0.39%
% Static: 23.68%
% Elastic: 8.26%
% Campus: 15.25%

Figure 6.4 – Cordele Tissue Analysis



County: Crisp

Founded: 1888

Population Change (1950-2010): 18.6%

Population Density (2010): 1099.3 people/square mile

Housing Unit Change (1950-2010): 69.8%

Housing Unit Density (2010): 483 units/square mile

Employment Change (2000-2010): --16.97%

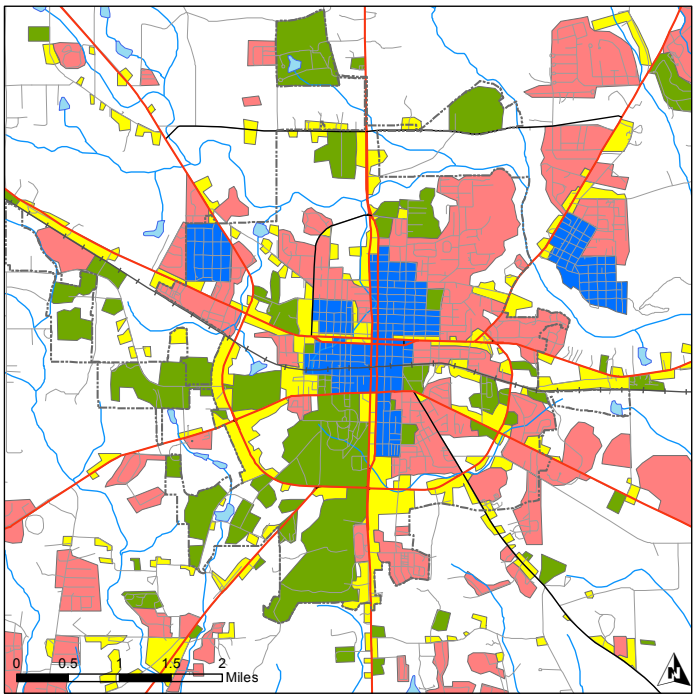
Largest Employment Sector (2010): Retail Trade, 1,319

Tissue Content:

% Resilient: 5.68%
% Static: 9.27%
% Elastic: 6.45%
% Campus: 7.59%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.5 – Douglas Tissue Analysis



County: Coffee

Founded: 1895

Population Change (1950-2010): 54.8%

Population Density (2010): 865.5 people/square mile

Housing Unit Change (1950-2010): 141.1%

Housing Unit Density (2010): 363.6 units/square mile

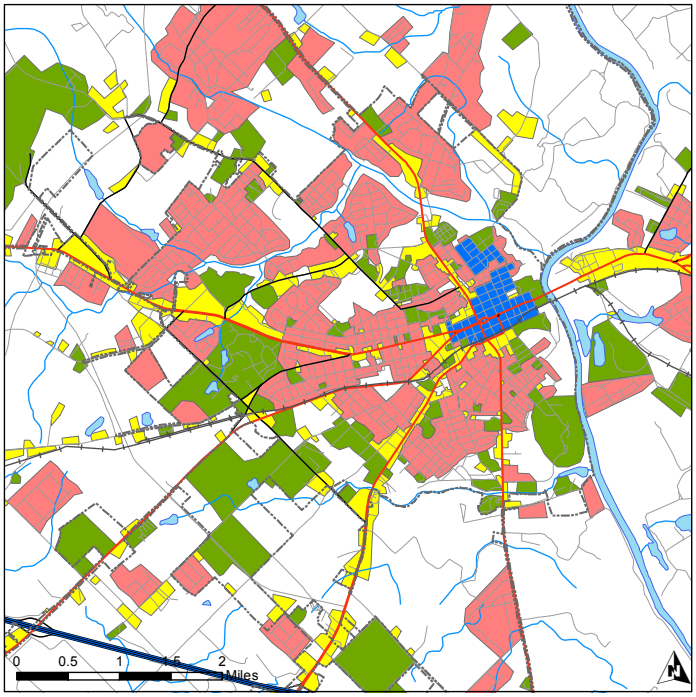
Employment Change (2000-2010): --28.11%

Largest Employment Sector (2010): Manufacturing, 2,820

Tissue Content:

% Resilient: 4.17%
% Static: 18.52%
% Elastic: 7.85%
% Campus: 10.17%

Figure 6.6 – Dublin Tissue Analysis



County: Laurens

Founded: 1812

Population Change (1950-2010): 58.3%

Population Density (2010): 1045.9 people/square mile

Housing Unit Change (1950-2010): 124.7%

Housing Unit Density (2010): 463.1 units/square mile

Employment Change (2000-2010): --7.63%

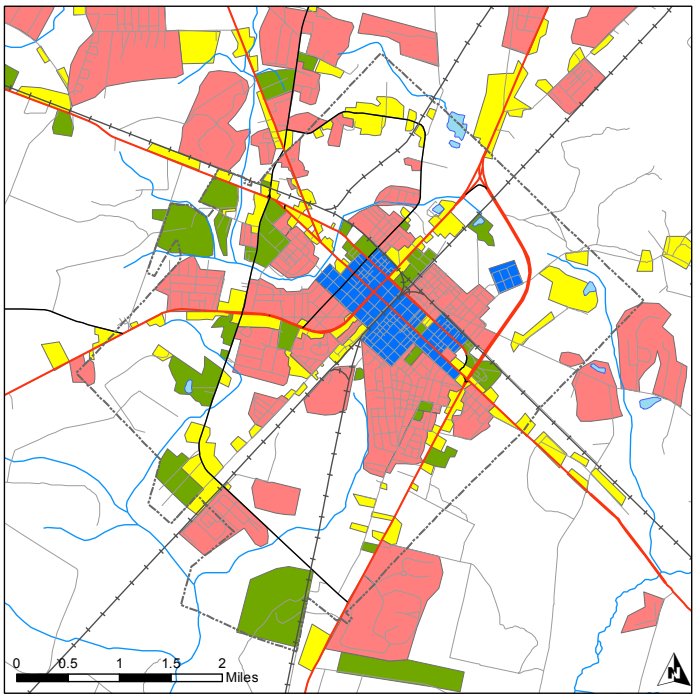
Largest Employment Sector (2010): Health Care & Social Assistance, 2,949

Tissue Content:

% Resilient: 1.00%
% Static: 22.11%
% Elastic: 7.42%
% Campus: 13.99%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.7 – Jesup Tissue Analysis



County: Wayne

Founded: 1870

Population Change (1950-2010): 121.8%

Population Density (2010): 622.4 people/square mile

Housing Unit Change (1950-2010): 184.8%

Housing Unit Density (2010): 223.2 units/square mile

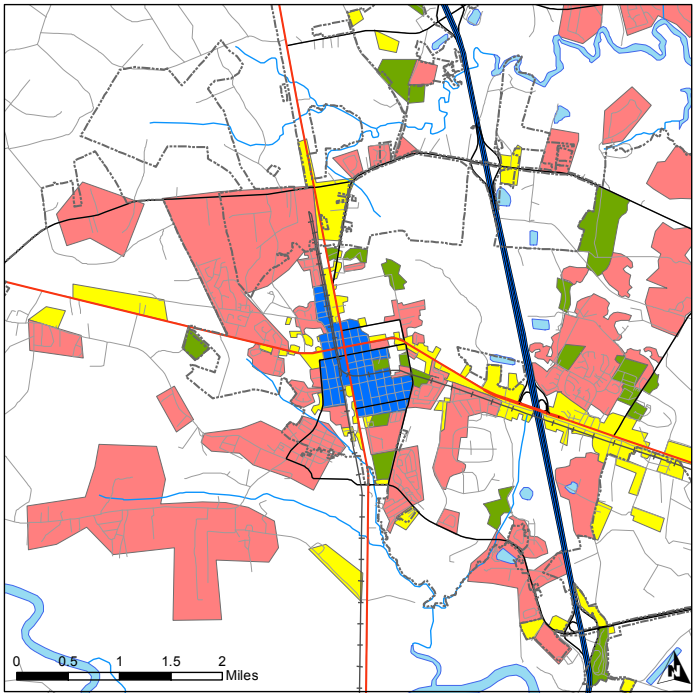
Employment Change (2000-2010): --27.09%

Largest Employment Sector (2010): Retail Trade, 1,319

Tissue Content:

% Resilient: 1.90%
% Static: 19.51%
% Elastic: 7.04%
% Campus: 4.87%

Figure 6.8 – Kingsland Tissue Analysis



County: Camden

Founded: 1908

Population Change (1950-2010): 1264.1%

Population Density (2010): 373.3 people/square mile

Housing Unit Change (1950-2010): 1774.9%

Housing Unit Density (2010): 152.3 units/square mile

Employment Change (2000-2010): 6.19%

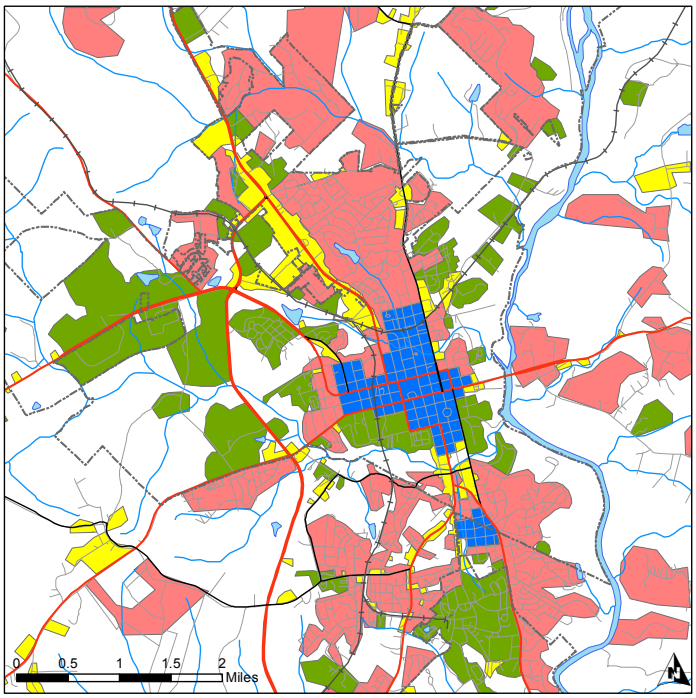
Largest Employment Sector (2010): Retail Trade, 2,378

Tissue Content:

% Resilient: 1.40%
% Static: 26.94%
% Elastic: 4.50%
% Campus: 2.09%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.9 – Milledgeville Tissue Analysis



County: Baldwin

Founded: 1803

Population Change (1950-2010): 100.5%

Population Density (2010): 868 people/square mile

Housing Unit Change (1950-2010): 179.7%

Housing Unit Density (2010): 335.9 units/square mile

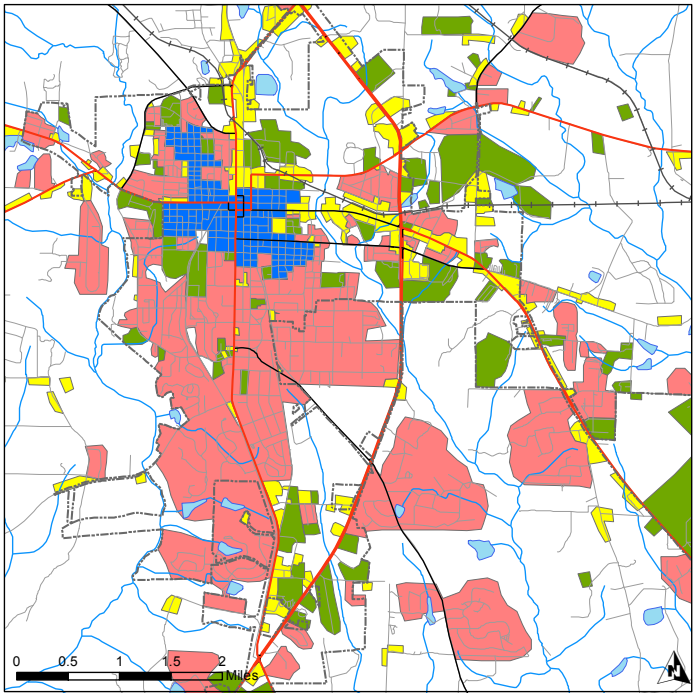
Employment Change (2000-2010): --16.26%

Largest Employment Sector (2010): Health Care & Social Assistance, 4,209

Tissue Content:

% Resilient: 2.44%
% Static: 24.68%
% Elastic: 5.23%
% Campus: 12.63%

Figure 6.10 – Moultrie Tissue Analysis



County: Colquitt

Founded: 1859

Population Change (1950-2010): 22.6%

Population Density (2010): 873.2 people/square mile

Housing Unit Change (1950-2010): 78.7%

Housing Unit Density (2010): 378.1 units/square mile

Employment Change (2000-2010): 2.14%

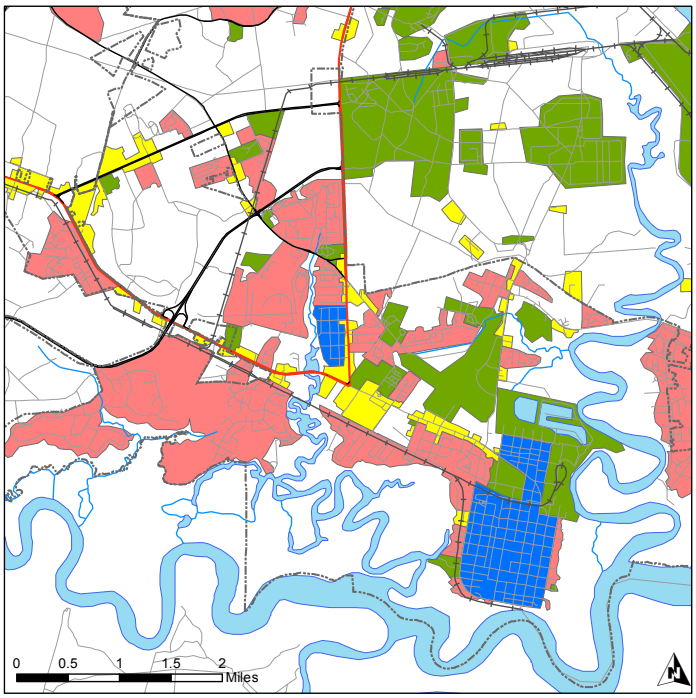
Largest Employment Sector (2010): Manufacturing, 3,148

Tissue Content:

% Resilient: 2.23%
% Static: 23.55%
% Elastic: 5.81%
% Campus: 11.98%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.11 - St. Marys Tissue Analysis



County: Camden

Founded: 1788

Population Change (1950-2010): 1170.1%

Population Density (2010): 760.6 people/square mile

Housing Unit Change (1950-2010): 1779.5%

Housing Unit Density (2010): 330.7 units/square mile

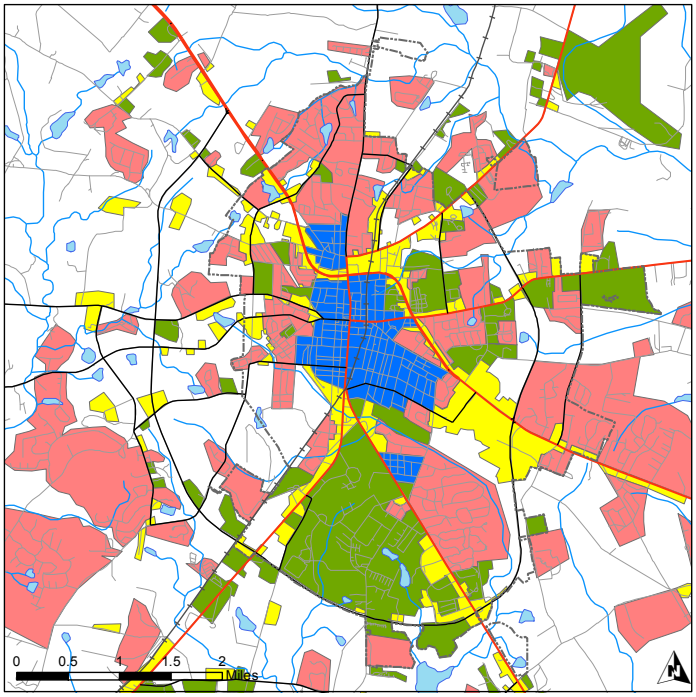
Employment Change (2000-2010): 6.19%

Largest Employment Sector (2010): Retail Trade, 2,378

Tissue Content:

% Resilient: 2.80%
% Static: 16.80%
% Elastic: 3.08%
% Campus: 13.01%

Figure 6.12 – Statesboro Tissue Analysis



County: Bulloch

Founded: 1866

Population Change (1950-2010): 366.2%

Population Density (2010): 2105.3 people/square mile

Housing Unit Change (1950-2010): 520.1%

Housing Unit Density (2010): 859.4 units/square mile

Employment Change (2000-2010): 0.18%

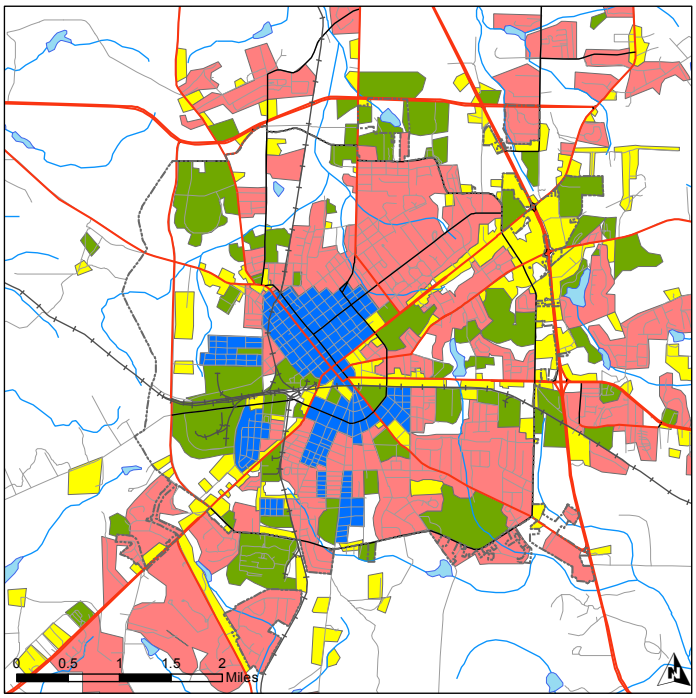
Largest Employment Sector (2010): Retail Trade, 3,422

Tissue Content:

% Resilient: 3.33%
% Static: 25.98%
% Elastic: 7.05%
% Campus: 12.76%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.13 – Thomasville Tissue Analysis



County: Thomas

Founded: 1826

Population Change (1950-2010): 27.7%

Population Density (2010): 1231.6 people/square mile

Housing Unit Change (1950-2010): 96.5%

Housing Unit Density (2010): 570.8 units/square mile

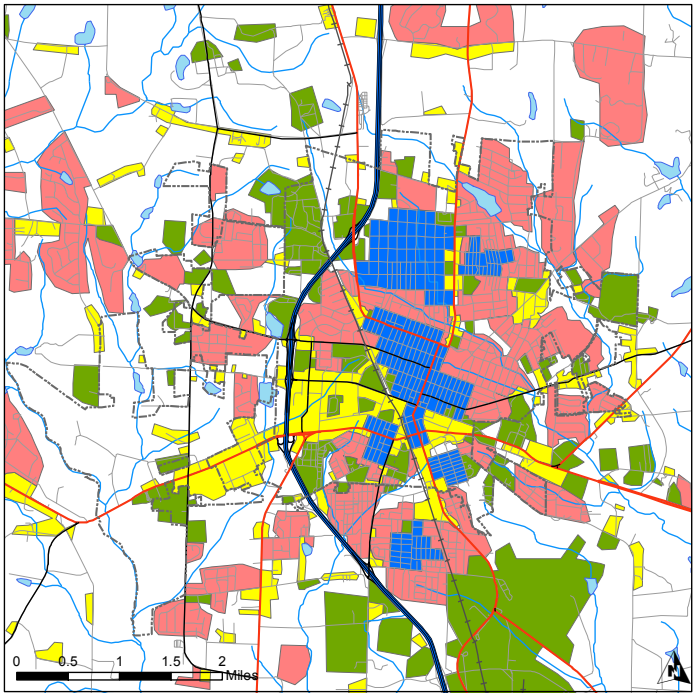
Employment Change (2000-2010): --13.90%

Largest Employment Sector (2010): Health Care & Social Assistance, 4,000 (Est.)

Tissue Content:

% Resilient: 3.48%
% Static: 23.67%
% Elastic: 7.88%
% Campus: 10.24%

Figure 6.14 – Tifton Tissue Analysis



County: Tift

Founded: 1872

Population Change (1950-2010): 139.4%

Population Density (2010): 1309 people/square mile

Housing Unit Change (1950-2010): 218.5%

Housing Unit Density (2010): 540.6 units/square mile

Employment Change (2000-2010): --13.86%

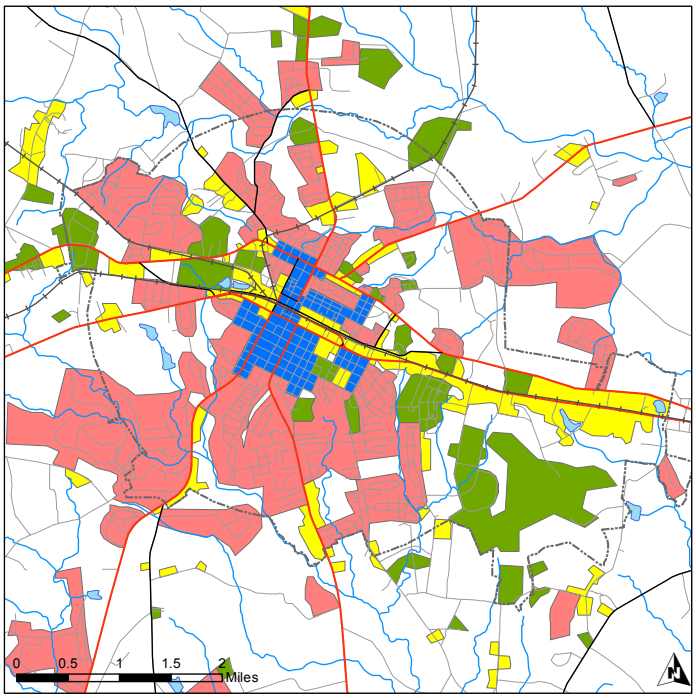
Largest Employment Sector (2010): Health Care & Social Assistance, 3,238

Tissue Content:

% Resilient: 4.21%
% Static: 22.32%
% Elastic: 8.31%
% Campus: 14.22%

Static Elastic Tissue Campus Tissue Resilient Tissue

Figure 6.15 – Vidalia Tissue Analysis



County: Toombs

Founded: 1892

Population Change (1950-2010): 80.0%

Population Density (2010): 606.4 people/square mile

Housing Unit Change (1950-2010): 176.3%

Housing Unit Density (2010): 642.1 units/square mile

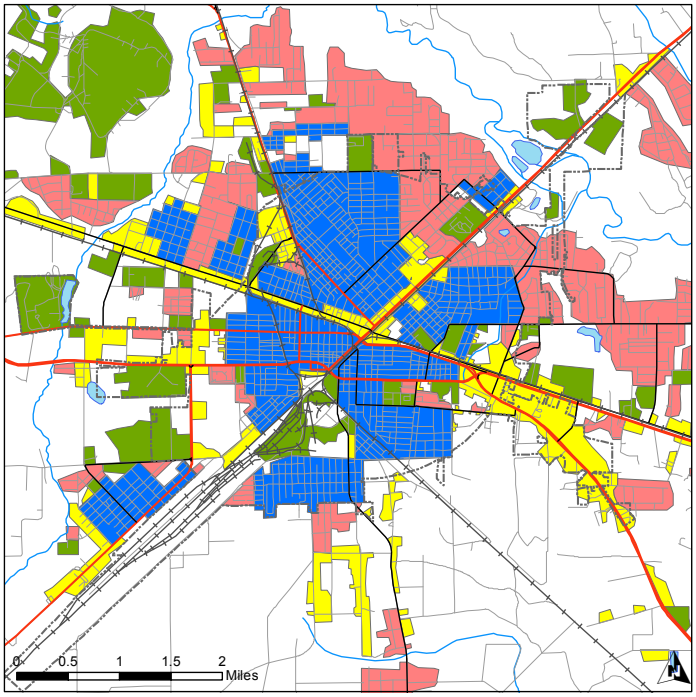
Employment Change (2000-2010): --9.48%

Largest Employment Sector (2010): Health Care & Social Assistance, 2,038

Tissue Content:

% Resilient: 1.98%
% Static: 20.90%
% Elastic: 6.03%
% Campus: 6.68%

Figure 6.16 – Waycross Tissue Analysis



County: Wayne

Founded: 1874

Population Change (1950-2010): --22.5%

Population Density (2010): 1251 people/square mile

Housing Unit Change (1950-2010): 36%

Housing Unit Density (2010): 642.1 units/square mile

Employment Change (2000-2010): --13.51%

Largest Employment Sector (2010): Retail Trade, 2,848

Tissue Content:

% Resilient: 13.18%
% Static: 15.97%
% Elastic: 9.68%
% Campus: 11.26%

Static Elastic Tissue Campus Tissue Resilient Tissue

- **Analysis Summary & Town Classifications**

Based on the applied tissue analysis above, each of the sixteen towns can be classified into three categories. Those being towns that have large areas of resilient tissue and fringe sprawl, ones with small amounts of resilient tissue and wide-spread sprawl, and the rest that have a in-between ratio of resilient to suburban tissue along with combined fringe and wide-spread sprawl. These three categories will help simplify and organize common traits and characteristics that are shared with each of the towns.

  - **High Resilient Tissue and Fringe Sprawl**

The cities of Waycross, Cordele, Tifton, Douglas, and Thomasville all exhibit this condition in their city cores. Waycross (Figure 6.16) has the most resilient tissue of this category and of all the sixteen study towns at 13.18%. Interesting enough, it is also the only study town of the sixteen that has a net loss of population growth from 1950 to 2010 of –22.5%. All other towns have had population gains over the same time period.

High resilient cores in these medium-sized towns indicate a strong, interconnected grid of a street framework that is the most adaptable to urban design changes over time. Areas that are more adaptable to change can do so as incrementally as necessary, as opposed to elastic or campus tissue sites that often are redeveloped in large, one-phased increments or even partially redeveloped.

In reference to the sprawling development surrounding this high resilient core tissue, there are fairly consistent patterns of static, elastic, and campus tissues that

are fairly compact and are within close proximity to the resilient core. Waycross and Thomasville in particular are two examples where sprawling development is kept mostly within and closely adjacent to the city limits. Cordele's city limits also exhibit a strong, consistent compact block pattern throughout the town center while Tifton and Douglas seem to exhibit more widespread and fringe-like patterns of sprawl with multiple nodes of significant resilient tissue. This is perhaps where the pre-cul-de-sac neighborhoods of the early 20th century were developed with small-fronting lots and interconnected linear streets.

- **Low Resilient Tissue and Wide-Spread Sprawl**

The cites of Calhoun, Dublin, Americus, St. Marys, and Kingsland are medium-sized towns that exhibit extremely small amounts of resilient core tissue and a large substantial amount of widespread suburban sprawl. These towns commonly have widespread areas of static, elastic, and campus tissues that are isolated, not interconnected with each other, and are typically located adjacent to main interstate or major arterial highways.

The city of Calhoun for example (Figure 6.3) only has a resilient tissue core percentage of 0.39% within the study area. The rest consists of widespread patterns of uncompact, unconnected static, campus, and elastic tissues that span lands throughout the Gordon County mountain valley. City limit "islands" and irregular political boundaries are formed without any obvious order or natural progression.

Similar patterns are also easily observed in Dublin (Figure 6.6), where patches of developed sprawl are shown between the resilient core downtown and the distant

interstate highway to the south. St. Marys and Kingsland (Figures 6.11 and 6.8) are two adjacent jurisdictions in Camden County that both have unsymmetrical urban forms and have merged their growth along their main arterial highways.

Americus (Figure 6.1) interestingly enough has a small resilient core, however does not exhibit as much widespread sprawl as the others in this category. However, even with this opposing condition, there are still disproportionately large areas of suburban tissue over resilient tissue that exhibits similar characteristics comparative to the others in this category.

- **Medium Resilient Tissue, Fringe and Wide-Spread Sprawl**

The towns of Statesboro, Jesup, Moultrie, Milledgeville, Bainbridge, and Vidalia are the other six towns that vary in-between the other two categories. Neither one has a consistently comparative pattern of suburban sprawl but does have a similar size resilient core comparison.

The resilient core percentages in this category range between 1.90% (Jesup, Figure 6.7) and 3.33% (Statesboro, Figure 6.12) and all seem to have similar patterns of large static subdivision growth in a single, outward direction from the resilient core. Statesboro and Moultrie for example extend its static and elastic growth to the south and southeast. Milledgeville and Jesup on the other hand extend north and northwest.

Elastic and campus tissue patterns in this case are not as dominant as in other towns, but they do vary in sprawl spread. Vidalia has more widespread sprawl while Bainbridge seems to be the most compact of this category. There are large

concentrated clusters of campus tissue in towns such as Statesboro (Figure 6.12) and Milledgeville (Figure 6.9) where there are large state college campuses and military sites. Local airports, multi-family housing, and clustered industrial districts also comprised the majority of the other campus tissue uses in this category.

Town Issues & Opportunities, Visions & Goals

- **Background on Comprehensive Planning in Georgia**

In 1989, the State of Georgia enacted the Georgia Planning Act, which mandated all counties and city jurisdictions in the state to have and maintain a comprehensive plan spanning either 20 or 30 years in the future. The Georgia Department of Community Affairs (DCA) is the official state agency in charge of resourcing, mandating, approving, and organizing the plans for all of Georgia's local jurisdictions. (City of Statesboro, 2009)

The comprehensive plans consist of three document components: the Community Assessment, Community Participation Plan, and the Community Agenda, which is the most central planning document of the three (City of Statesboro, 2009). The Community Agenda document of the Comprehensive Plan should show how local communities guide and prioritize what types of development happen, where they happen, and how they happen. A "good" comprehensive plan, according to the DCA, should clearly answer the questions of: "what they have" (Issues/Opportunities), what they want (Visions/Goals) and "how they will get it" (Implementation). The plans should also embody the following benefits to each community:

- Ensures that quality of life is improved and maintained
- Clearly explains the visions and future intentions of the local community and its stakeholders
- Adequately protects the rights of private property owners

- Effectively supports economic development and growth opportunities
- Create more certainty about what new growth and development will be like, where it will be located, when it will happen, and how the potential costs will be financed (Georgia DCA, 2013)

- **Comparative Analysis of Town Comprehensive Plans**

For the purposes of this study, the comprehensive plans for each of the sixteen medium sized towns ideally should reflect what has happened up through the plan's inception, as well as clearly define what the communities objectives, visions, and goals are to improve the town's physical appearance and developmental character for the future. In particular, the plans from the three classified study cities of Calhoun, Statesboro, and Waycross will be compared to see how each jurisdiction has clearly identified their issues, established their own visions and goals, and has implemented steps in relation to urban design methods and standards.

For the Urban Design Issues and Opportunities sections, major topics covering housing, land use, transportation, and natural & cultural resources will be considered as directly relevant to urban design and development measures in each town. For the Visions & Goals section, topics are organized into three sub-categories: Commercial Corridors (with ties back to Elastic and Campus tissues), Residential (with ties to Static tissue), and Downtown Urban Core areas (Resilient Tissue). These are the main focus areas that involve direct urban design and infrastructure adjustments. Lastly the Implementation section of the analysis records what relevant short-term or on-going work has been done to address the listed issues, opportunities, and visions.

Table 2.1 – Comprehensive Plan Analysis of Waycross[10]

	City of Waycross-Ware County (Combined Plan)
Urban Design Issues	**Transportation** • Need for improved access to the downtown through traffic pattern improvements including better signage • Lack of continuous and safe bicycle trails both for the recreational and sport bicyclist and any form of public transit. **Natural/Cultural Resources** • Historic Downtown is not utilized to its potential, most traffic by-passes historic downtown Waycross due to existing road network • Ware County has a lot of wetlands that may be impacted by development **Land Uses** • Most blighted areas are located along the main thoroughfares • Lack of countywide zoning **Housing** • Large areas of blighted homes and neighborhoods. • People work in Waycross, but live in surrounding counties due to better housing market and choices.
Urban Design Opportunities	**Transportation** • Develop a long range transportation plan addressing issues **Natural/Cultural Resources** • Consider wetlands mitigation standards to encourage development while minimizing impact on the natural environment • Pursue building up business and cultural diversity downtown **Land Uses** • Encourage re-use of blighted development • Encourage development of communities that provide diversity of uses and housing choices **Housing** • Increase housing opportunities in downtown including additional apartments, affordable housing and loft living • Increase housing revitalization and /or infrastructure upgrades in neighborhoods
Urban Design Visions/Goals	**Downtown Urban Core (Resilient Tissue)** • Continue renovation and rehabilitation of historic buildings • Continue to develop mixed-use to include residential, commercial, and cultural uses in the area to encourage a vibrant, livable, and walkable downtown **Commercial Corridors (Campus/Elastic Tissue)** • Provide more interconnectivity between properties • Develop visual and maintenance standards to create a more attractive gateway into town **Residential Areas (Static Tissue)** • Provide for more safety and connectivity through continuous sidewalks and bike paths • Protect established neighborhoods from encroachment and deterioration and preserve historic buildings and character
Implementation /Applied Work Plans	**Short-term (On-going) Work Plan (1-5 years)** • Sidewalk inventory & improvements • Hire a consultant to develop a Downtown Master Plan • Develop standards to allow for the in-fill and retrofitting of older, historic landmarks for modern functions, flexibility of uses, preservation **Report of Accomplishments (at Plan's Adoption)** • Regular maintenance/beautification of highway corridors and gateways (2008-2012) • Update City and County zoning ordinances (2008-2012)

[10] From the 2031 Joint Ware County-City of Waycross Comprehensive Plan, August 2010, City of Waycross-Ware County

Table 2.2 – Comprehensive Plan Analysis of Calhoun[11]

	City of Calhoun
Urban Design Issues	**Transportation** • Concentrated traffic through the CBD, parking in the CBD, congestion along major corridors • Lack of alternative transportation modes **Natural/Cultural Resources** • Greenspace preservation difficult to achieve due to development pressures and the design of new developments, which is typically not oriented to maximizing open space in site layout • Lack of a Tree Protection/Replacement Ordinance and landscaping standards for new development **Land Uses** • Strip commercial development, potential of "big box" retailers abandoning current stores • Need to identify redevelopment areas **Housing** • Lack of available land to accommodate new housing • Aging neighborhoods and multi-unit housing as well as a need for "aging in place" mechanisms for existing residents
Urban Design Opportunities	**Transportation** • A Downtown Master Plan to address parking, gateway treatment, and local traffic as well as land use, especially ones that are compatible with public transit • Seek Sidewalks-to-Schools funding, Prepare a Bike/Ped/Multi-Use Path Plan to identify opportunities for sidewalks, multi-use paths, bike lanes, and share-the-road signage **Natural/Cultural Resources** • Protect open space while permitting new residential development by adopting a Conservation Subdivision Ordinance or amending the existing Planned Residential District **Land Uses** • Adopt a commercial corridor overlay districts to regulate changes to existing development and the appearance of new development (building exterior, signage, parking, lighting, etc.) • Promote additional retail and mixed-use opportunities in the downtown area **Housing** • Promote senior housing opportunities by adopting a Senior Housing Ordinance • Identify areas suitable for redevelopment to mixed-use, senior living and workforce housing opportunities
Urban Design Visions/Goals	**Downtown Urban Core (Resilient Tissue)** • Reinforce traditional pedestrian-scaled development patterns, including building placement close to street, lighting, site features, sidewalk use and amenities, traffic patterns, etc • Reinforce downtown as the community focal point of Calhoun **Commercial Corridors (Campus/Elastic Tissue)** • Coordinate land use planning with bike, pedestrian and transit opportunities • Provide standards for signage, building placement and stromwater friendly surface parking • Preserve/improve traffic flow, utilizing interparcel access and driveway consolidation • Strengthen pedestrian connections to adjacent residential areas **Residential Areas (Static Tissue)** • Increase pedestrian connectivity between neighborhoods and downtown, possibly with a network of greenways/trails • Accommodate senior housing opportunities, which can be integrated into the existing development pattern and can benefit from close proximity to downtown goods and services • Provide safe facilities for pedestrians, school buses, and bicyclists using the road right-of-way
Implementation /Applied Work Plans	**Short-term (On-going) Work Plan (1-5 years)** • Develop Stormwater Plan (2008-2011) • Streetscape Phase III (2011) • Adopt a Senior Housing Ordinance, Tree Protection/Replacement Ordinance (2008) • Coordinate with the County on a Pedestrian/Bicycle Plan, identifying and prioritizing sidewalk and bicycle facility projects inside the City limits to enhance connectivity and transportation options (2012-2016) **Report of Accomplishments (at Plan's Adoption)** • Acquire river corridor property on Oostanaula River (2002-2003) • Implement Storm Water Plan (2004-2006) – In Planning Stages

[11] From the City of Calhoun Comprehensive Plan (2007-2027), August 2007, City of Calhoun

Table 2.3 – Comprehensive Plan Analysis of Statesboro[12]

	City of Statesboro
Urban Design Issues	**Transportation** • Additional sidewalks, crosswalks, and bike facilities needed • Need ADA accessible curb cuts and connectivity of pedestrian and bike facilities • Lack of alternate transportation options **Natural/Cultural Resources** • Needs to conserve sensitive wetlands, trees and vegetation • Historic downtown and historic neighborhoods not meeting all goals of preservation **Land Uses** • Lack of connectivity between neighborhoods and commercial uses • School siting not pedestrian friendly or accessible by surrounding neighborhoods **Housing** • Housing balance and types have been shifting towards more multi-family than single-family • Lack of housing in downtown core, decline of older housing stock • Encroachment of student housing into residential neighborhoods
Urban Design Opportunities	**Transportation** • Diversify transportation options with more walking and biking infrastructure, both on and off street greenway networks • Extending transit service from college campus to linking destinations **Natural/Cultural Resources** • Stormwater mitigation through low impact development practices • Extending efforts to preserve historic downtown and neighborhoods **Land Uses** • Seek to develop more mixed-uses and planned unit developments • Seek to redevelop school siting to be more integrated within neighborhoods **Housing** • Offer more housing product types, while redeveloping deteriorating neighborhoods • Encourage more mixed-income affordable housing options
Urban Design Visions/Goals	**Downtown Urban Core (Resilient Tissue)** • Maintain character and vitality in downtown core, remain the activity and cultural hub of the city • Expand role of downtown to offer more opportunities for office, commercial, retail, entertainment and arts • Promote infill and redevelopment **Commercial Corridors (Campus/Elastic Tissue)** • Should place a high priority on street frontage, pedestrian and bicycle accommodations • Transitions to Urban Corridors should serve as a gateway into the Statesboro Urban Core **Residential Areas (Static Tissue)** • Enforce codes to prevent undesired student housing encroachment in residential neighborhoods • Form neighborhood associations and urban conservation areas to protect neighborhood character
Implementation /Applied Work Plans	**Short-term (On-going) Work Plan (1-5 years)** • Establish pocket parks and urban parks throughout city • Complete Phases I and II of the downtown streetscape project • Identify and implement additional streetscape projects in the Urban Core and Gateways • Participate in a master plan to guide the formation of a network for on- and off-street bicycle/pedestrian travel. **Report of Accomplishments (at Plan's Adoption)** • Residential Subdivision Incentive Program (enacted in 2001), growth in permits 2005 • Add amenities to railroad bed/biking trail such as drinking fountains, lighting, and benches • Sidewalk installation (portion of Hwy 24), repairs city wide • Construct and landscape islands in a parking lot behind City Hall • Provide parking, a shuttle service, and bike lanes to encourage downtown living

[12] From the City of Statesboro Comprehensive Master Plan, May 2009, City of Statesboro

- **Analysis Summary of Town Comprehensive Plans**

In comparing tables 2.1-2.3, we see that all three towns have similar visions in terms of reconfiguring land-uses, encouraging diverse housing types and diverse transportation modes. However, when it pertains to implementation, each one varies. For example in Waycross, the city has only been maintaining their current gateways and corridors, while Statesboro has constructed new gateway infrastructure and downtown amenities. Calhoun on the other hand has streetscape and gateway improvements planned in its short-term work plan.

In comparing Urban Design Issues and Opportunities, all comprehensive plans consistently list issues and opportunities under pre-selected categories of Housing, Land Use, Transportation, and Natural/Cultural Resources with some slight differences.

Under Housing issues and opportunities, Waycross and Statesboro primarily focus on blighted neighborhoods and declining residential population, and also capitalizes on the opportunity to attract residents back to the urban core. Calhoun is dealing with lack of developable land from over-development for new housing and therefore must utilize opportunities in enhancing and redeveloping older neighborhoods. Given Calhoun's demographics, specific attention to accessible senior and workforce housing is also emphasized in contrast to the others.

For Land Use issues and opportunities, Waycross and Calhoun mainly focus on the blighted and abandoned "big box" developments occurring along their major arterial corridors. Both towns also emphasize a lack of a specified zoning district that can regulate how buildings are set back from the street and how abandoned

buildings can be reused and revitalized. Statesboro on the other hand, focuses on connectivity between their commercial corridors and their surrounding residential subdivisions. School siting has also been a major concern given how most of the local schools in the area are not easily accessible by walking or biking. Therefore the visions of each town are to reverse these occurring issues brought up by community members.

In dealing with Natural and Cultural resources, Calhoun and Statesboro seek to deal with nature preservation and tree ordinances, while Waycross is more critically interested in attracting visitors and cultural life to their downtown; since much of their incoming and outgoing traffic bypasses the historic downtown core. In terms of opportunities, Statesboro seems to be the most progressive by envisioning stormwater management measures such as pervious surface parking lots in new low impact developments.

Lastly, in Transportation, Waycross and Calhoun specifically address traffic congestion concerns, while all the three towns critically address the needs for diversified transportation options such as transit service, bike routes, greenways, and pedestrian connecting sidewalks and trails. Each town commonly plans to create and implement a transportation master plan that addresses their issue of traffic as well as incorporate alternate transport modes such as greenway and trail networks for bikes and pedestrians.

For the Urban Design Visions and Goals, subcategories relating back to the tissue analysis were assigned to better simplify a common comparison. For the Residential Area (Static Tissue) visions, Waycross and Calhoun both seek to add

more connecting sidewalks and pedestrian trails that connect to downtown amenities and gives citizens more safe and active areas to walk. Statesboro mainly focuses on enforcing ordinances and code to curtail college student encroachment and value deterioration of existing single-family neighborhoods.

For the Commercial Corridor (Campus/Elastic Tissue) visions, all three towns have similar visions of redeveloping their commercial corridors to be more urban-friendly gateways instead of the unstable suburban strips they are now. All towns have visions of providing standards for building setbacks, sidewalks for parcel interconnectivity, driveway (curb-cut) consolidation, signage and surface parking lot materiality. It seems like all three towns recognize the necessity of creating more pleasantly attractive gateways into their urban centers.

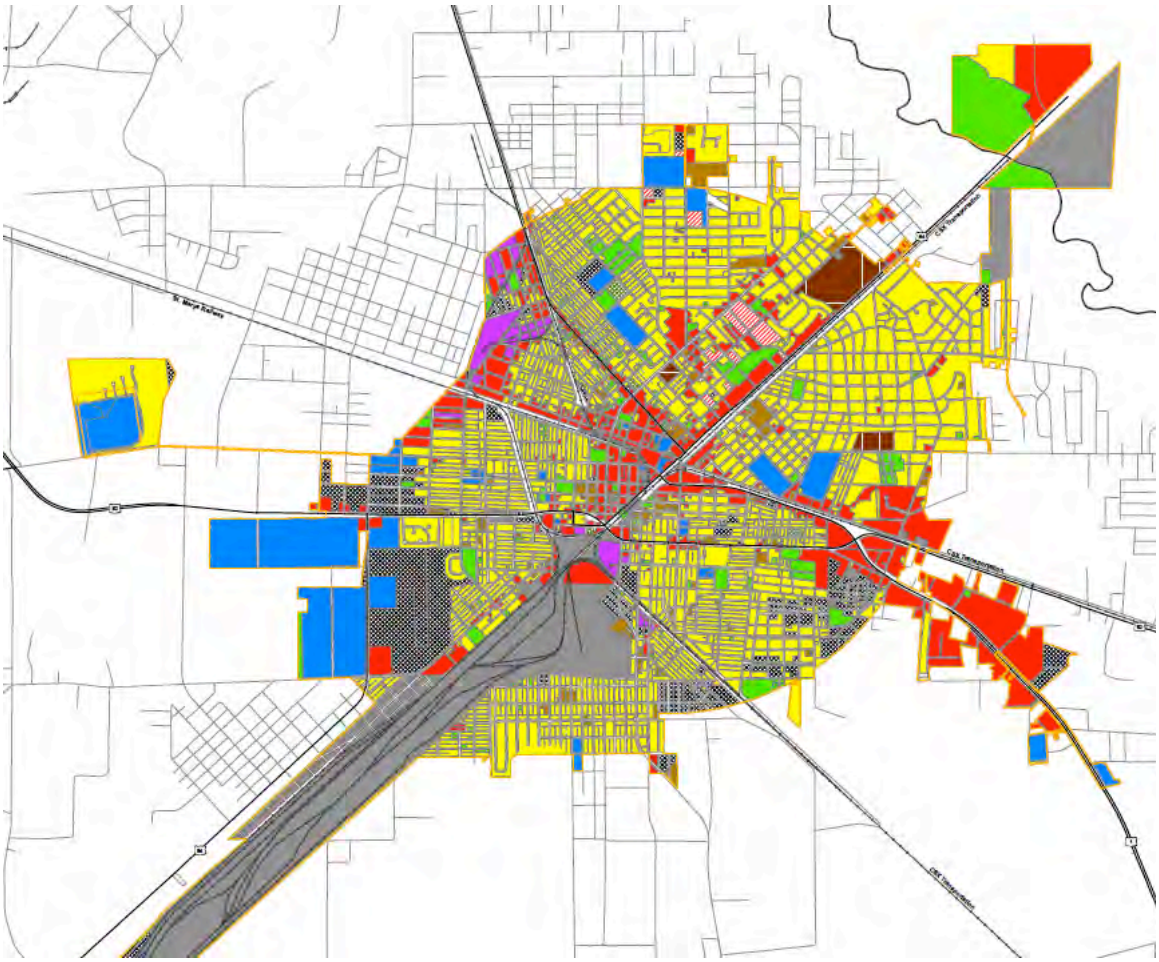
Lastly, for the Downtown Urban Core Area (Resilient Tissue), Waycross and Calhoun both struggle with retaining a vibrant, sense of place for their downtown areas. So they both are seeking to attract mixed-use types of development to help attract more vitality to their downtown cores. This especially is the case for Calhoun since it does not have a large resilient downtown core that can frame a walkable sense of place. Waycross interestingly enough has the large amounts of resilient tissue needed for a walkable, vital downtown but ironically lacks any redevelopment potential in light of low marketability and diverted traffic patterns. Statesboro on the other hand, with a medium resilient core, seems to have a better-established sense of place but would like to continue expanding the vibrancy into other urban core sections.

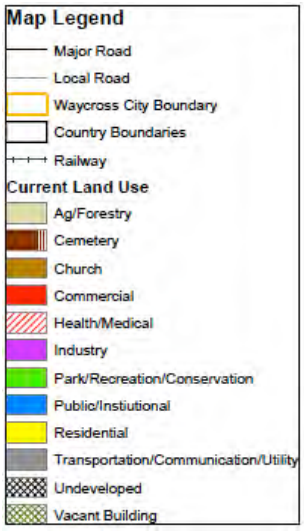
As explained earlier in this section, the implementation phases of these visions have all varied as expected. Each town is independent from one another and therefore has to deal with its own set of residents and local funding. However, in term of priorities, Statesboro seems to be in the lead in terms of project implementation. There have been significantly more urban design related projects that have been either completed or in progress. The other two towns are still lagging behind only accomplishing smaller inexpensive projects and focusing on planning efforts such as a stromwater mitigation plan in Calhoun and a highway corridor maintenance and beautification project in Waycross. Under their short-term work plans however, Calhoun and Waycross are both planning on implementing more sidewalks and master plans for alternate transportation, pedestrian interconnectivity, and urban retrofitting and infill.

- **Current Land Use & Future Development Maps**

The figures on the following pages show the current zoning and future development plans for Calhoun, Statesboro, and Waycross. These are all from their respective current comprehensive plans. The zoning maps track current regulated land uses, while the Future Development maps build upon them and suggest where future districts, nodes, and corridors of redevelopment focus should occur.

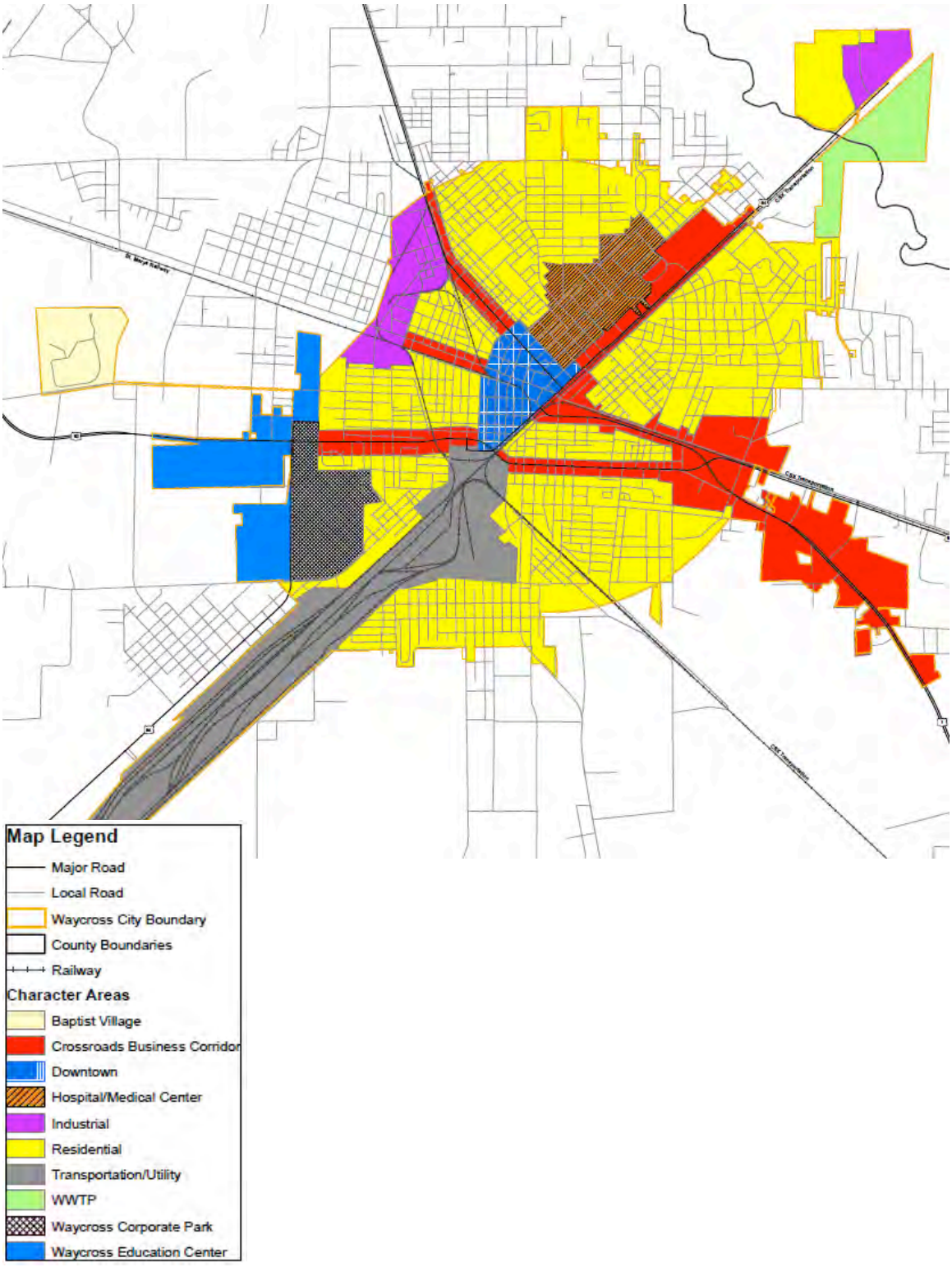
Figure 7.1 - City of Waycross Current Land Use Map[13]





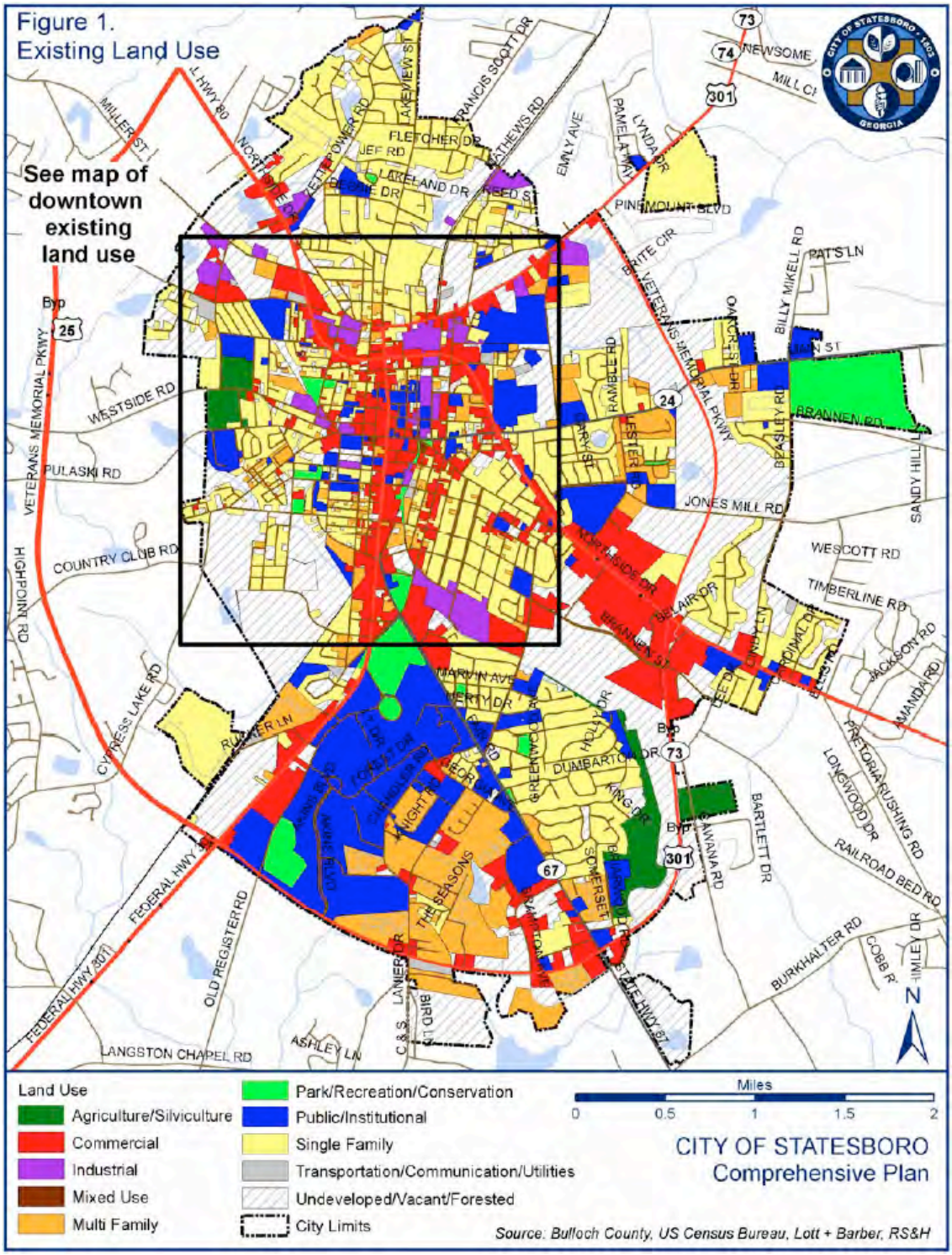
[13] From the 2031 Joint Ware County-City of Waycross Comprehensive Plan, Adopted August 2010, Georgia DCA

Figure 7.2 - City of Waycross Future Development Map[14]



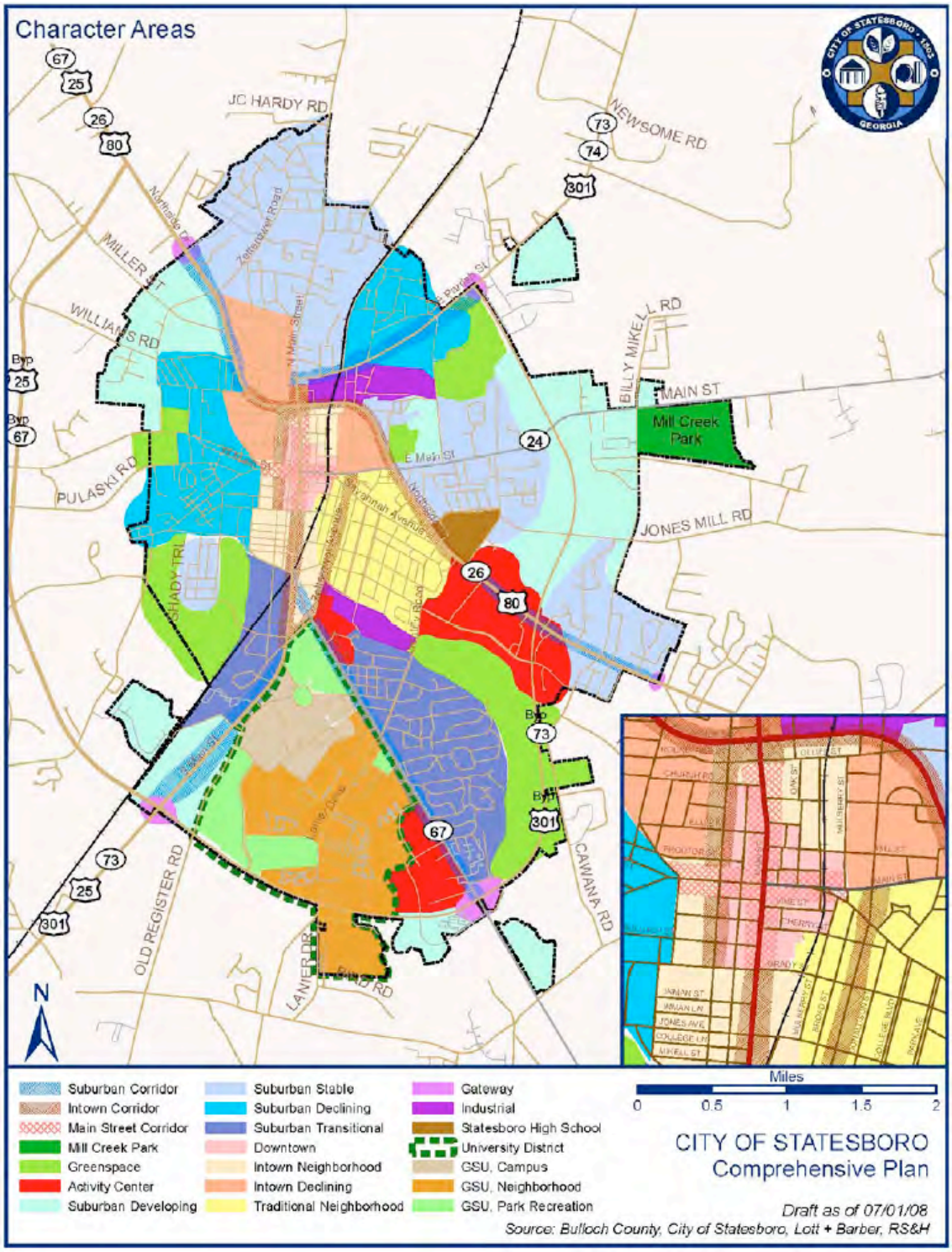
[14] From the 2031 Joint Ware County-City of Waycross Comprehensive Plan, Adopted August 2010, Georgia DCA

Figure 8.1 - City of Statesboro Current Land Use Map[15]



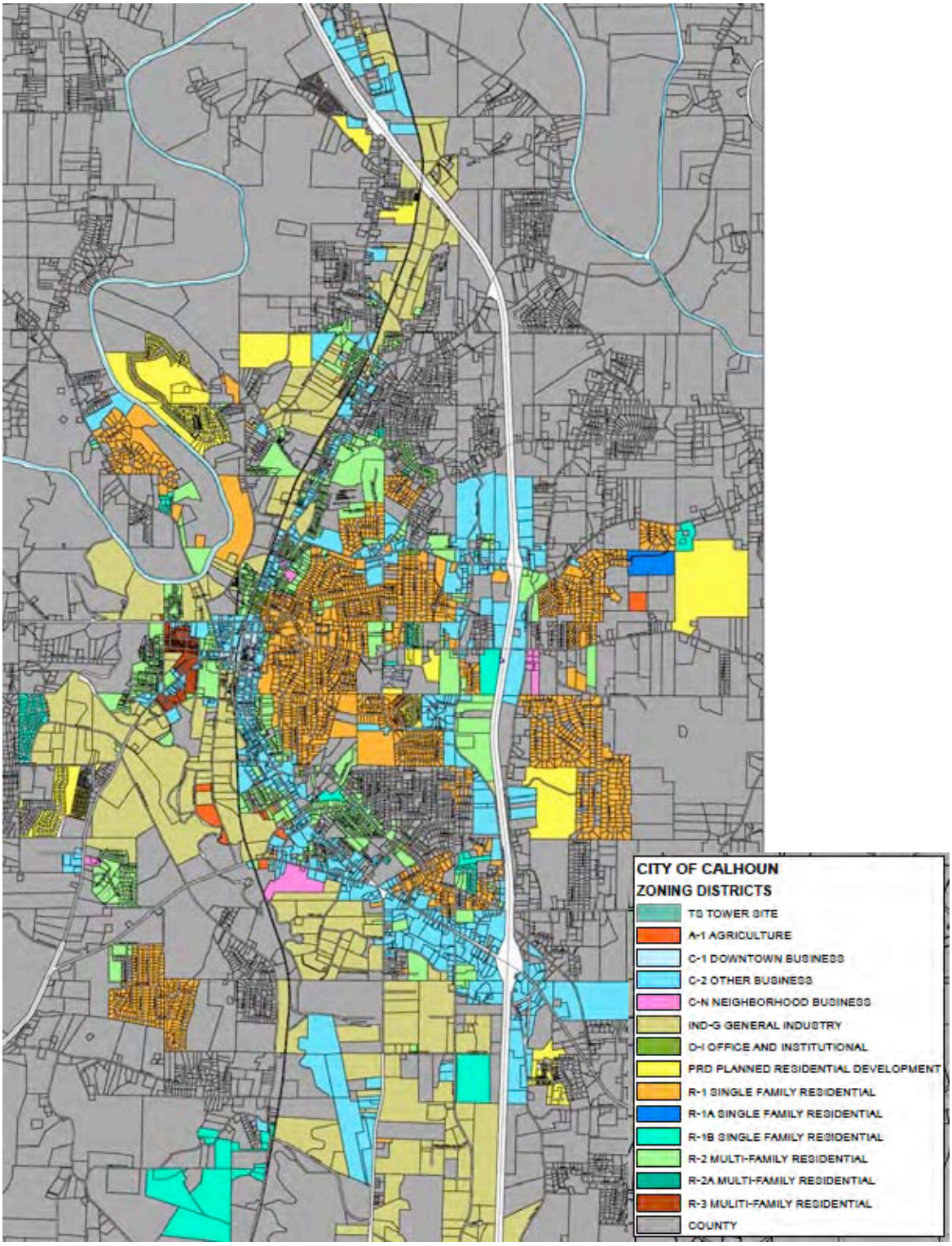
[15] From the May 2009 Adopted City of Statesboro Comprehensive Master Plan, Georgia DCA

Figure 8.2 - City of Statesboro Future Development Map[16]



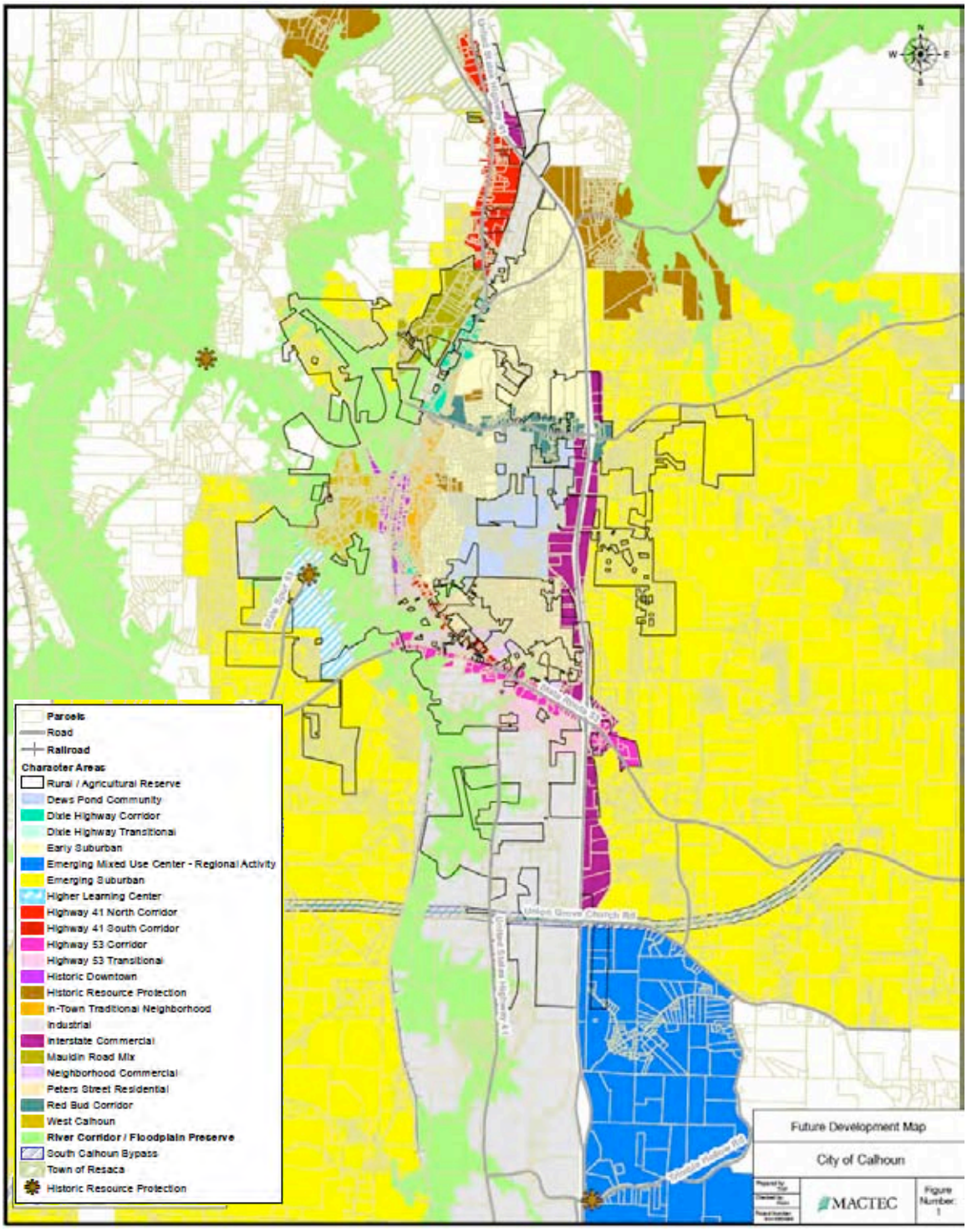
[16] From the May 2009 Adopted City of Statesboro Comprehensive Master Plan, Georgia DCA

Figure 9.1 - City of Calhoun Current Zoning Map[17]



[17] From the City of Calhoun Comprehensive Plan (2007-2027), August 2007, Georgia DCA

Figure 9.2 - City of Calhoun Future Development Map[18]



[18] From the City of Calhoun Comprehensive Plan (2007-2027), August 2007, Georgia DCA

Town Regulatory Framework

- **Background on Zoning & Subdivision Regulations**

Zoning is defined as "the local regulations that prescribes how land may be used or developed." (Knoxville-Knox County MPC, 2001b) These regulations control what type of building use is permitted along with height and bulk of structures, size and location of open spaces, and the development intensity allowed on the land. They also regulate street signage, off-street parking, and regulates the environmental affects caused by industries. As much as it regulates, it however does not regulate specific construction details of buildings, since these are already covered in other specified building codes. The full intent of zoning is to provide police powers by local governments to promote and protect health, safety, and welfare of private property owners. (Knoxville-Knox County MPC, 2001b)

Subdivision regulations, along with zoning regulations, go a step further and regulate specifically how subdivided private property is aligned with public rights-of-way. They set the design guidelines for streets, drainage ways, sewage disposal, water systems, and other aspects of public welfare. They also ensure public access and availability of public services by use of right-of-way easements and in effect they help conserve natural, historic, recreational, and other highly valued community assets. (Knoxville-Knox County MPC, 2001a)

This portion of the town analysis will answer how each town's urban form has been shaped over time through their primary regulatory documents (zoning regulations and subdivision regulations), and whether or not they reflect their current aspirations and visions. The following tables (3.1-3.3) analyze how Waycross,

Calhoun, and Statesboro have applied their visions and goals to their regulatory frameworks. The regulatory framework should also indicate how each town has been shaped over time and perhaps explain the cause for its developmental tissue analysis.

- **Comparative Analysis of Town Zoning & Subdivision Regulations**

Table 3.1 - City of Waycross Zoning & Subdivision Regulations Analysis[19,20]

City of Waycross							
Zoning Designation	**Single-Family Residential (Static)**				**Commercial Corridor (Elastic/Campus)**		**Downtown Core (Resilient) CBD**
Applicable Zones	**RS**	**R-90**	**R-75**	**R-50**	**C-1**	**C-2**	**C-4**
Density & Height Requirements							
Average Lot Area	10,000 sf	10,000 sf	9,000 sf	6,000 sf	-	-	-
Average Lot Width	90 ft	90 ft	75 ft	50 ft	-	-	-
Floor Area Ratio (FAR)	35% Max	35% Max	35% Max	35% Max	25% 1 st, 40% 2 st+	40% 1 st, 60% 2 st+	100% 1 st, 300% 2 st+
Max Height	35 ft Max	35 ft Max	35 ft Max	35 ft Max	35 ft Max	35 ft Max	60 ft Max
Building Setback Requirements							
Min. Front Yard							
Major Street	45 ft	45 ft	40 ft	35 ft	35 ft	40 ft	0 ft
Collector Street	45 ft	45 ft	40 ft	35 ft	35 ft	40 ft	0 ft
Minor Street	40 ft	40 ft	35 ft	30 ft	35 ft	40 ft	0 ft
Min. Side Yard (street)							
Major Street	20 ft	20 ft	20 ft	20 ft	30 ft	30 ft	0 ft
Collector Street	20 ft	20 ft	20 ft	20 ft	30 ft	30 ft	0 ft
Minor Street	20 ft	20 ft	20 ft	17 ft	25 ft	25 ft	0 ft
Min. Side Yard (lot)	25 ft	25 ft	20 ft	15 ft	0 ft, FP 15 ft	0 ft, FP[21] 15 ft	0 ft, FP 15 ft
Min. Rear Yard	30 ft	30 ft	25 ft	25 ft	25 ft	25 ft	10 ft
Parking Requirements	2/ dwelling, Off-street	2/dwelling, Off-street	2/dwelling, Off-street	2/dwelling, Off-street	Varies by Building Use	Varies by Building Use	Varies by Building Use
Subdivision Regulations	Minimum Block Dimensions: 500 ft x 500 ft Maximum Block Dimensions: 1600 ft x 1600 ft Sidewalks: No specific requirements found Street Grades: Major: No specific requirements found ROW Easements: 15 ft, run across lots (centered on rear/side lot lines when possible) Driveways/Curb Cuts: Min 12 ft wide, Follow Sections 608.8, 611 for size, spacing, & location[22]						

[19] City of Waycross, Georgia (2013b). "Waycross Zoning Ordinance – Section VII."

[20] City of Waycross, Georgia (2011) – Codes & Ordinances"

[21] FP refers to Fireproofing

[22] City of Waycross, Georgia (2013a). "Waycross Zoning Ordinance – Section VI."

Table 3.2 - City of Calhoun Zoning & Subdivision Regulations Analysis[23]

City of Calhoun							
Zoning Designation	**Single-Family Residential (Static)**				**Commercial Corridor (Elastic/Campus)**		**Downtown Core (Resilient) CBD**
Applicable Zones	**R-1**	**R-1A**	**R-2**	**R-2A**	**C-N**	**C-2**	**C-1**
Density & Height Requirements							
Average Lot Area	25,000 sf	15,000 sf	7,500 sf	10,000 sf	-	-	-
Average Lot Width	125 ft	100 ft	60 ft	100 ft	-	-	-
Floor Area Ratio (FAR)	35% Max	35% Max	35% Max	35% Max	-	-	-
Max Height	40 ft Max	40 ft Max	40 ft Max	40 ft Max	35 ft Max	50 ft Max	-
Building Setback Requirements							
Min. Front Yard							
Major Street	50 ft	40 ft	40 ft	40 ft	40 ft	40 ft	-
Collector Street	40 ft	35 ft	30 ft	30 ft	40 ft	40 ft	-
Minor Street	35 ft	30 ft	25 ft	25 ft	40 ft	40 ft	-
Min. Side Yard (street)							
Major Street	35 ft	25 ft	10 ft	10 ft	40 ft	40 ft	-
Collector Street	10 ft	10 ft	10 ft	10 ft	40 ft	40 ft	-
Minor Street	25 ft	10 ft	10 ft	10 ft	40 ft	40 ft	-
Min. Side Yard (lot)	25 ft	25 ft	20 ft	15 ft	20 ft	20 ft	-
Min. Rear Yard	35 ft	20 ft	20 ft	20 ft	20 ft	20 ft	-
Parking Requirements	1/dwelling, Off-street	1/dwelling, Off-street	1/dwelling, Off-street	1/dwelling, Off-street	Varies by Building Use	Varies by Building Use	Varies by Building Use
Subdivision Regulations	Minimum Block Dimensions: not found Maximum Block Dimensions: not found Sidewalks: Required in Residential Subdivisions and along Commercial developments Street Grades: Major: <10%, Collector: <12%, Minor: <14%, Minimum: 1.5% ROW Easements: No specific mandated requirements found Driveways/Curb Cuts: Min: 12 ft wide, Max: 24 ft wide (residential), Commercial based on uninterrupted traffic ingress/egress						

[23] **From Codes and Ordinances, City of Calhoun, Georgia (2012)**

Table 3.3 - City of Statesboro Zoning & Subdivision Regulations Analysis[24]

City of Statesboro							
Zoning Designation	**Single-Family Residential (Static)**				**Commercial Corridor (Elastic/Campus)**		**Downtown Core (Resilient) CBD**
Applicable Zones	**R-6**	**R-10**	**R-20**	**R-40**	**CR**	**HOC**	**CBD**
Density & Height Requirements							
Average Lot Area	6,000 sf	10,000 sf	20,000 sf	40,000 sf	10,000 sf	20,000 sf	-
Average Lot Width	60 ft	70 ft	100 ft	130 ft	-	Different Use every 100 ft	-
Floor Area Ratio (FAR)	45% Max	40% Max	25% Max	25% Max	85%	30%	-
Max Height	35 ft Max	35 ft Max	35 ft Max	35 ft Max	35 ft Max	45 ft	45 ft
Building Setback Requirements							
Min. Front Yard						60 ft w/ Front Parking	
Major Street	20 ft	20 ft	30 ft	50 ft	25 ft		-
Collector Street	20 ft	20 ft	30 ft	50 ft	25 ft	20 ft w/o Front Parking	-
Minor Street	20 ft	20 ft	30 ft	50 ft	25 ft		-
Min. Side Yard (street)							
Major Street	10 ft	10 ft	10 ft	15 ft	20 ft-50 ft	30 ft	-
Collector Street	10 ft	10 ft	10 ft	15 ft	20 ft-50 ft	30 ft	-
Minor Street	10 ft	10 ft	10 ft	15 ft	20 ft-50 ft	25 ft	-
Min. Side Yard (lot)	10 ft	10 ft	10 ft	15 ft	20 ft-50 ft	0 ft, 15 ft	-
Min. Rear Yard	20 ft	20 ft	30 ft	50 ft	25 ft	25 ft	-
Parking Requirements	2/dwelling, Off-street	2/dwelling, Off-street	2/dwelling, Off-street	2/dwelling, Off-street	Varies by Building Use	Varies by Building Use, No On-street allowed	Varies by Building Use
Subdivision Regulations	Minimum Block Dimensions: 400 ft x 400 ft Maximum Block Dimensions: 1200 ft x 1200 ft Sidewalks: Installed on all arterial and collector streets, ADA compliance required Street Grades: Major: Managed by Georgia DOT, Collector: <8%, Minor: <15% Min: 1.5% ROW Easements: 15 ft each side of roadway Driveways/Curb Cuts: Follow City of Statesboro Access Control & Driveway Standards and Specifications						

[24] From the City of Statesboro Codes and Ordinances, City of Statesboro (2012a), (2012b)

- **Analysis Summary of Town Zoning & Subdivision Regulations**

Based on the analysis in Tables 3.1-3.3, it is inferred that zoning designations and subdivision regulations across jurisdictions are organized quite differently from one another. In terms of zoning definitions, each town defines their zoning different from one another. Waycross for example has residential zoning that relates to the average lot width (R-75 = 75 feet lot width), while Statesboro has their residential zoning relate to the average lot size (ex. R-6 = 6,000 square feet lot area). Calhoun's residential districts however have no relation to any distinct specifications and just lists each district as a category (R-1, R1-A, R-2 etc.).

In terms of commercial zoning, each town also has its own unique designation, with one type being for Neighborhood Commercial development and the other for Arterial Corridor-oriented Commercial Development. The central business districts (CBD) in each town were designated by either a CBD zoning district (Statesboro) or as another Commercial designation (C-4 Waycross, C-1 Calhoun).

Under Density and Height Requirements, each town has noticeably inconsistent differences with their lot areas and lot widths. Statesboro has the largest range of lot areas spanning from 6,000 to 40,000 square feet, while Waycross has the least range from 6,000 to 10,000 square feet. Waycross also has the least range of lot widths from 50 feet to 90 feet for all their residential lots, while Calhoun and Statesboro have larger ranges up to 130 feet for the largest parcel. Waycross and Statesboro both had similar height maximums for residential development at 35 feet, while Calhoun's is at 40 feet.

For the Building Setback Requirements in the residential zones, Statesboro seems to stand out the most with small side lots and large rear and front setbacks, indicating long rectangular lot sizes. Calhoun's residential lots also seem to have this same configuration, while the residential lots in Waycross seem to have the least rear setback, which may suggest a more shallow lot. In the commercial districts, all towns follow similar setback dimensions to their residential zones, however they do seem to allow more flexibility for zero lot line buildings, as long as they are fireproofed. In the CBD zones, Waycross seems to be the only town that specifies full zero lot line flexibility, however the other two towns do not specify any specific setback dimensions or any other regulated requirements.

For the Parking Requirements, Waycross and Statesboro both require 2 off-street spaces per dwelling for their residential districts, while Calhoun only requires 1 off-street space per dwelling. The commercial districts in all towns however are specified depending on building type and square footage.

The subdivision regulations for each town are even more varied in language than the zoning regulations. Each town specifies their lot subdivision requirements differently or hardly at all, as it seems to be the case in Calhoun. In terms of overall block dimension, Statesboro's minimum and maximum block dimension on one side is 400 feet and 1200 feet respectively, while Waycross is 500 feet minimum and 1600 feet maximum. Calhoun did not specify any minimum or maximum block dimensions in their ordinances.

Sidewalks are required to be installed on all arterial and collector streets in Statesboro and additionally in residential areas in Calhoun. Waycross has no required sidewalk design standard. Waycross also does not specify any maximum street grades in their subdivision ordinance. Street grade maximums in Calhoun and Statesboro range between 8 and 15 percent, but are contingent on site typography and street type. Slower, minor streets tend to have the largest grade percentages over faster arterial roads.

Right-of-way easements also vary; Waycross specifies it across lots, while Statesboro aligns to the roadway with a 15 feet buffer on both sides. Of all the subdivision regulation design standards observed, the driveways and curb cuts are perhaps the most varied with each town specifying various inconsistent requirements.

Conclusions

- **Lessons Learned**

  - **High Resilient Tissue, Fringe Sprawl (Waycross)**

From studying the urban patterns of Waycross, the town shows a very strong resilient tissue pattern that has much potential in providing for flexible building uses over time without drastically altering the infrastructure; especially since much of it is already in place. It mimics a sustainable urban framework that is known traditionally to work in other larger cities such as New York, Savannah, and Chicago. Cordele is the next study town behind Waycross that has this similarly high-resilient downtown core. Some of the main issues that Waycross faces however deal with matching their comprehensive plans and ordinances with local economic market realities.

Waycross has very good physical infrastructure for good urban development potential, but lacks the economic development potential it needs, with evidence shown from the -22.5% overall population change from 1950 to 2010 and the -13.51% change in number of jobs since 2000. The comprehensive plan of Waycross highlights this concern as a major issue that is preventing their resilient core from thriving and has envisioned more mixed-use redevelopment of all blighted areas. In implementation of these visions however, steps to forming a master plan and establishing development standards for mixed-use infill are only in the short-term phase and as of this date have not yet been accomplished. The current regulatory documents for Waycross does show the Downtown Core (CBD) zone as supporting mixed-use, zero-lot line development. However, the subdivision requirements call for

minimum and maximum block sizes of 500 feet and 1500 feet respectively, which may be slightly too large as completely walkable blocks.

In terms of Waycross' suburban tissues, the city visions to regulate these areas by integrating an interconnected network of continuous sidewalks and bike paths between the static single-family residential areas and the elastic and campus commercial corridors. However, implementation efforts of this vision and the most recent regulatory documents currently lack any mention of this requirement for new and existing developments.

- **Low Resilient Tissue, Wide-Spread Sprawl (Calhoun)**

Alternately, in very low resilient areas such as Calhoun, the current town development does not support much walkability or bikability, since the majority of land development in this town is suburban in nature, as either static (with dendritic streets), elastic, or campus (with large, isolated buildings). Employment in this town has also struggled since 2000 at -16.24% but however has grown dramatically in population and housing units by 384.4% and 558.9% respectively, perhaps making Calhoun more of distant bedroom community than a completely isolated location.

The most recent comprehensive plan for Calhoun focuses on the effects of wide-spread sprawl and over-suburbanization which include intense traffic congestion, lack of transportation alternatives and sidewalks, abandoned "big boxes" and strip malls, and lack of adequate land for greenspace preservation. All these issues are quite typical for an unregulated, sprawling community. In implementing their visions and goals of mitigating these persistent issues, only a stormwater

management plan and housing ordinances have been accomplished thus far. Other projects such as a bicycle/pedestrian master plan for Gordon County are planned to be in progress according to the short-term work plan schedule. A downtown master plan is also in the works that will seek to interconnect the downtown district with surrounding neighborhoods and essentially expand their small resilient core.

In Calhoun's regulatory documents, zoning lot coverage and building setbacks remain fairly consistent with other jurisdictions in Georgia of this size. However, the subdivision regulations are not adequately defined as they need to be. For instance, the minimum and maximum block sizes are not defined, which technically allows for any street configuration to occur. As a result, the town has been developed in a dominantly dendritic pattern supporting static land uses. On an alternate note, sidewalks are currently required to be built in any new residential subdivision and along all commercial developments, aligning to the town's vision of more interconnectivity between residential neighborhoods and commercial districts.

- **Medium Resilient Tissue, Fringe and Wide-Spread Sprawl (Statesboro)**

In Statesboro and perhaps in other similar medium resilient towns, the issues of walkability, bikability, housing options, and isolated land uses are still big topics as with many other places. In Statesboro's case however, the city has appeared to actively address many of these issues through implementing their comprehensive plan goals and visions. Statesboro in particular has seen exponential population and housing unit growth at 366.2% and 520.1% respectively from 1950 to 2010. The town also has a slightly positive employment growth at 0.18% with the largest employment sector currently being in Retail Trade. The campus expansion of Georgia

Southern University and the influx of its growing student population have perhaps contributed towards much of this developmental growth over the past few decades.

In Statesboro's comprehensive plan, they discuss issues and needs with expanding alternate transportation options, adding additional sidewalks and bike facilities throughout the city, and accessibility to local neighborhood schools. Gateway and corridor enhancement is also a primary concern. Contrary to the other two towns studied in depth, Statesboro appears to already have a good focus on urban planning efforts and policy implementation, for their entire city and not just for their downtown central business district.

Efforts have already been made citywide at the plan's adoption such as: commuter shuttle services, bike lanes that connect to downtown, ongoing sidewalk installation and improvements, and residential incentive programs. In the short-term future of this plan, Statesboro plans on continuing to enhance their quality of life for all parts of their city and not just the inner core or the suburban areas. For instance, this includes: more pocket parks and urban parks throughout the city, identification and implementation of other streetscape projects after the downtown phases are completed, and formulating a citywide master plan for bike lanes and pedestrian trails (similar to Calhoun).

In Statesboro's regulatory documents, there are a large amount of residential zones for the city that correspond to the average lot areas. Only 4 of the 8 residential zones defined in the City of Statesboro have been compared for this study. Other jurisdictions have either focused on the lot width in their naming, or have used a completely arbitrary system all together. All other density and height requirements

and building setbacks from each zone are fairly consistent with other studied jurisdictions, as well as the parking requirements. In the subdivision regulations, the required block dimensions are slightly less than in Waycross with a minimum and maximum block dimension of 400 feet and 1200 feet respectively. The minimum size is more optimal for walkable blocks. Sidewalks are required to be installed on all arterial and collector streets but no mention of minor streets, which would primarily be in slower-speed, single-family residential areas. Unlike the other towns compared, Statesboro does also require that the sidewalks be ADA accessible and has a separate document that sets the design standards for driveways and curb cuts.

- **Suggested Next Steps**

Some suggested next steps for Waycross (as a model high-resilient town) might be for their city to continue actively planning for their downtown resilient core and establish a well-defined master plan for their downtown central business district and surrounding neighborhoods. The plan should directly utilize the current infrastructure already in place and also alter the city's current subdivision regulations to allow for smaller block sizes other than the 500 feet set minimum. The town should also integrate into their regulatory documents requirements for sidewalks and bike trails interconnecting their residential neighborhood and commercial districts, and formulate a citywide pedestrian/bike master plan similar to Calhoun and Statesboro.

In Calhoun (as a model low-resilient town), some suggested next steps might be for the town to continue planning efforts with a bike and sidewalk master plan along with an additional downtown master plan that will effectively expand the

downtown resilient core and stitch together surrounding neighborhoods with new roadway and sidewalk infrastructure. The newly added local streets should aid in alleviating traffic congestion along the main corridors and potentially improve any unsafe walking conditions. To support the addition of these local streets however, Calhoun must first alter its subdivision regulations to include minimum and maximum block sizes like Waycross and Statesboro.

In the case of Statesboro (as a model medium-resilient town), the city should remain focused on enriching their downtown core and identifying other districts for improvement. In their suburban districts for instance, where land uses are dominantly campus, static, and elastic, planning and regulatory documents should be adjusted to reflect a new type of commercial highway district model that adopts the traditional downtown urban framework by incorporating multiple modes of transportation and walkability in addition to the uses of the automobile. Zoning requirements could become more streamlined with other jurisdictions of this size, or even reformed into a progressively new type of zoning, such as Form-Based coding for instance. As an alternative to traditional Euclidean zoning, Form-based coding has been adopted in larger metropolitan areas such as Miami, Florida. Reforming the zoning regulations, subdivision, and design standards can be a way to ensure that special places and districts citywide are formed as an implemented vision of the community it represents.

Lastly, for the other thirteen towns in the study, they can adapt the methods used by Waycross, Calhoun, and Statesboro as a model to improve their own core districts. They also can append their own visions and regulatory documents by

modeling ideas from resources such as the "*Sprawl Repair Manual"* by Galina Tachieva and "*Retrofitting Suburbia"* by Ellen Dunham-Jones and June Williamson[25]. These authors all explain methods and show detailed case studies of how sprawling residential neighborhoods, commercial retail strips, and old abandoned "big-box" developments in areas common to these towns can be repurposed as more walkable and urban.

As demonstrated in this analysis study, these towns are configured very similarly to sprawling suburban areas in a major urban metropolis. They are bound to the same visionary and regulatory practices set consistent by jurisdictional entities. Therefore, these medium-sized towns at a smaller scale can benefit from the same types of improvements and suburban retrofits, while also supporting resurging urban growth and vitality in their central downtown cores.

[25] **Full citations for these titles are listed under References.**

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